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OFFICE OF THE SHERIFF

April 14, 2006

Catherine Seidel, Acting Chief
Wireless Telecommunications Bureau
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

WAIVER--EXPEDITED ACTION REQUESTED

Submitted for the record in:
WT Docket No. 96-86
WT Docket No. 02-378

Dear Ms. Seidel,

Pursuant to the provisions of 47 C.F.R. § 1.925 this letter constitutes a request, upon Commission approval of the Region 22 700 MHz Plan, for expedited consideration of waivers of two FCC rules on behalf of Hennepin County, Minnesota; Washington County, Minnesota; and the Metropolitan Emergency Services Board of St. Paul, Minnesota (a joint powers entity organized as a Regional Radio Board under Minnesota Laws) collectively referred to herein as "Applicants". This waiver request is associated with license applications for 700 MHz public safety channels allocated for wideband data use. The associated FCC license application forms (Form 601) are attached for reference and are also being concurrently submitted through CAPRAD and APCO's frequency coordination system into the Commission's ULS. The specific waivers being requested are:

1. Waiver of 47 C.F.R. § 90.531 (c) (1) to permit the licensing and use of wideband channels designated for interoperability use prior to Commission adoption of a wideband interoperability standard to allow construction of a TIA-902 (SAM) shared region wide wideband data interoperability network.

2. Waiver of 47 C.F.R. § 90.535 (c) for a temporary period expiring on 7/31/2009 to permit interim use of Scalable Adaptive Modulation (SAM) emission designator 17K7D7W producing a channel efficiency rate of 96 kbps per 25 kHz of bandwidth centered on a 50 kHz wideband channel until the system can be updated under contract to SAM emission designator 43K6D7W producing a channel efficiency rate of 230 kbps per 50 kHz of bandwidth.

Attached to this letter is a statement providing a complete explanation as to why the waiver is desired and needed. Information supporting this request which is already on file with the Commission is cross referenced. Supporting information which is not on file with the Commission is both cross referenced and attached as applicable to this filing.

An objective assessment of the unique factual circumstances in this matter will support a finding that: (1) Application of the rules in this case would be contrary to the public interest; (2) The underlying purpose of the rules would not be served by application to the instant case; (3) The Applicants have no reasonable alternative to meet their critical public safety needs; and (4) A grant of the requested waivers would best serve the public interest.

Special Temporary Authority Request

In the event the Commission's expedited consideration of this waiver request is likely to extend beyond July 1, 2006 for procedural reasons such as issuance of public notices, solicitation of public comments, further engineering and policy reviews, etc., Applicants' respectfully request issuance of a Special Temporary Authority to enable installation, optimization, testing and initial operations of the contracted system during the second half of 2006.

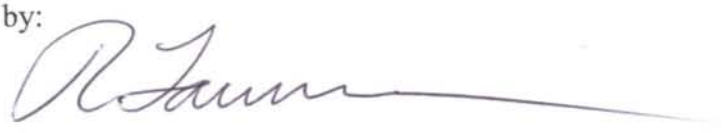
This filing was prepared by, and all questions regarding this filing should be directed to:

Mr. Roger R. Laurence
Radio Communications Manager
Hennepin County Sheriff's Office
9300 Naper Street
Minneapolis, MN 55427
roger.laurence@co.hennepin.mn.us
(612) 596-1920

Sincerely,

Patrick D. McGowan
Hennepin County Sheriff

by:



Roger R. Laurence
Radio Communications Manager

cc:
Mr. Michael Wilhelm
Chief, Public Safety and Critical Infrastructure Division

Jeannie Benfaida
Public Safety and Critical Infrastructure Division

attachments

Detailed Explanation Supporting a Rule Waiver Request On Behalf of Hennepin County, Minnesota, Washington County, Minnesota, and the Metropolitan Emergency Services Board (Applicants) April 14, 2006

I. Waiver of 47 C.F.R. § 90.531 (c) (1) Interoperability Channels

1. Purpose

Applicants' proposed use of interoperability channels is for establishment of a region wide 700 MHz wide band wireless data communications system for the purposes of achieving interoperability among first responders and to provide capacity for day to day use. This initiative will offer several substantial firsts: (1) This will be the first public safety wireless data system in the Midwest area constructed to serve multiple jurisdictions throughout an entire metropolitan region; (2) This will be the first public safety wireless data system in Minnesota to provide connectivity to multiple E-9-1-1 Public Safety Answering Point (PSAP) Computer Aided Dispatch (CAD) and Records Management System (RMS) networks; and (3) This will be the first public safety wireless data system in the nation utilizing the TIA-902 open architecture technology offered by multiple vendors.[1]

2. TIA-902 SAM

The Applicants have entered into a system procurement contract with Motorola, Inc. to implement a nine county interoperable 700 MHz wideband data system conforming to the following standards.[2]

Document Name	Document Number	Date
Scaleable Adaptive Modulation (SAM) Physical Layer Specification (Modulation)	TIA-902.BAAB-A	September, 2003
Scaleable Adaptive Modulation (SAM) Channel Coding Specification (Turbo Coding)	TIA-902.BAAD-A	September, 2003
Media Access Control / Radio Link Adaptation	TIA-902.BAAC	September, 2002
Logical Link Control Layer Specification	TIA-902.BAAE	September, 2002
Packet Data Specification (PDS)	TIA-902.BAEB	May, 2003
Mobility Management Specification (MMS)	TIA-902.BAAF	May, 2003
Wideband Data Methods of Measurement	TIA-902.CAAA	February, 2003
SAM Performance Recommendations	TIA-902.CAAB	January, 2003

The Applicants will be using the IEEE TIA-902 technology which was first recommended as the national interoperability standard by the NCC on July 25, 2003[3] and subsequently proposed by the Commission as the national interoperability standard for use on interoperability channels.[4] The Applicants are aware of the various issues contained in the 8th NPRM in docket 96-86 with respect to refreshing the record on this matter. While there are a variety of opinions regarding the need for interoperability channels, the number of channels, and whether a standard is ultimately necessary, we

[1] System proposals were received by the Metropolitan Emergency Services Board for TIA-902 compliant systems from both MA/COM and Motorola. Both vendors indicated that conforming subscriber radios from either vendor would function on conforming infrastructure from either vendor.
[2] Motorola contract exhibit B-5 "System Description".
[3] Letter from Kathleen M.H. Wallman to Chairman Powell.
[4] At paragraph 53 in FCC 05-09.

are unaware of any technologies other than TIA-902 that have been proposed as alternative standards. Given the record in this matter, it appears likely that if there is to be a standard it will be TIA-902. The Applicants' proposed use of TIA-902 on interoperability channels to construct an interoperability backbone would therefore be consistent with the purpose and intent of the existing FCC rules, the Region 22 Plan and the Commission's tentative conclusion in FCC 05-09 to adopt a wideband interoperability standard.

3. MESB Metro Area Data Plan

The proposed interoperability wideband data system has been approved by Metropolitan Emergency Services Board, a regional radio board under Minnesota Laws, the Minnesota Statewide Radio Board and the Region 22 Planning Committee. The Region 22 700 MHz Plan, submitted to the FCC on October 14, 2005, provides for a region wide data plan by the Metropolitan Emergency Services Board (formerly the Metropolitan Radio Board).[5] The Region 22 Plan indicates that license applications for wideband channels will be accepted by the RPC upon approval of the MESB Plan.[6] The MESB Plan includes utilization of wideband channels designated for interoperability use as part of the region wide interoperable wireless data system. The MESB Plan, the license applications attached hereto and this waiver request were approved by the Region 22 Planning Committee on April 11, 2006.[7]

4. Region 22 Plan Conformance

The Commission generally recognizes decision making of Regional Planning Committees and has provided considerable flexibility to the Regions in determining how to best use spectrum within their geographic areas. The proposed use of the interoperability channels fully conforms to allocations for wideband general use and interoperability channels in the Region 22 Plan. The Region 22 700 MHz Plan encourages agencies to make provisions for interoperability by integrating designated interoperability channels into their systems. The Plan permits the use of interoperability channels for day to day use provided that sufficient capacity exists for interoperability events. The Plan indicates that nationwide common channels 46, 48, 73 & 75 are to be a priority for implementation as part of a major wideband system.[8] Three of these nationwide channels are included as part of the MESB's first phase and the fourth is identified for future expansion. The MESB's Plan provides an initial 12 site shared region wide interoperability system with capacity for 480 users (40 users per base transceiver station).

5. General Use Channels Alone Insufficient

The MESB channel plan is structured to accommodate both current and future participation by jurisdictions throughout the region and channel resources are allocated to provide an equivalent grade of service throughout the region to all users. As demonstrated by the MESB channel plan, the system is only feasible with a combination of both general use and interoperability channels and there is no alternative to using interoperability channels.[9] Adjacent and co-channel reuse constraints orphan a number of channels which cannot be used within a given geographic area.[10] The final contracted permissible "message load profiles" indicating the uplink and downlink payloads for a typical hour of data transactions per mobile client were substantially scaled back due to the limited number of

[5] Channel Allocation Plan for the Metro Region ARMER Shared Region Wide Interoperable Data Layer as specified in sections 8.3.3 & 8.3.4 of the Region 22 700 MHz Plan submitted by the Metropolitan Emergency Services Board, February, 2006.

[6] Section 8.3.3 of the Region 22 700 MHz Plan.

[7] See letter from Sheriff Steve Pott, Chairman, Region 22 Planning Committee.

[8] Section 8.3.4 of the Region 22 700 MHz Plan.

[9] Channel Allocation Plan for the Metro Region ARMER Shared Region Wide Interoperable Data Layer as specified in sections 8.3.3 & 8.3.4 of the Region 22 700 MHz Plan submitted by the Metropolitan Emergency Services Board, February, 2006.

[10] Motorola has indicated that subject to antenna height and terrain variances the preliminary engineering guidelines for 50 kHz SAM is a 35 mile separation for adjacent channel and 60 miles for co-channel reuse. However, adjacent channels can be co-located at the same site provided each has a separate transmit antenna.

channels that could be packed into the multi-county geographic area. Forty concurrent users can be accommodated per base station with the constrained message load profile.[11]

Advanced broadband type services including unlimited Web browsing, large file attachments, real time streaming media, remote sensing, robotics and remote PC client management were not included in the system design requirements due to a lack of sufficient spectrum and channel throughput within the existing wideband public safety allocations. Intermediate services including MPEG video files and other substantial file transfers were included in the system RFP process. Vendors indicated the number of wideband channels that would have been required to support these intermediate services. Although it would have been technically possible to have implemented a sufficient number of wideband channels within Hennepin County and the City of Minneapolis alone to accommodate these intermediate services, all available channels would have been exhausted in the urban core. Allocating all of the channels to only one or two jurisdictions at the expense of other jurisdictions would be grossly inequitable and inconsistent with the Region 22 Plan.

The requested combination of general use and interoperability channels will allow implementation of a system providing basic services including CAD, RMS, AVL and database queries plus limited intermediate services including limited Web browsing and small file transfers. Limiting the system to general use channels only would reduce capacity to the extent that the system would sacrifice basic services, limit the number of concurrent users and reduce geographic coverage, making the system impractical to implement.

6. Future Re-channelization

Applicants believe that TIA-902 standards based wideband systems will provide an economically deployable baseline technology serving a variety of public safety applications in wide geographic regions including urban, suburban and rural areas. Even though broadband is likely to be deployed primarily in high density areas, an underlying standards based wideband layer will be desirable in many urban areas to support interoperability, roaming into and out of the urban area, and for basic services for those users not requiring advanced bandwidth intensive applications. Consistent with prior comments filed in this matter, [12] we are concerned that there appears to be insufficient spectrum within the current 700 MHz public safety wideband allocations to accommodate deployment of both broadband and wideband infrastructures simultaneously within a single metropolitan area and that additional spectrum allocations will be necessary to meet the long term needs of public safety, particularly with respect to broadband data communications.

Notwithstanding these concerns regarding overall spectrum allocations, the Applicants are receptive to a conditional waiver whereby the contracted system would be re-channelized at a later date to conform with future revisions to FCC rules and the Region 22 Plan for 700 MHz wideband allocations. The Applicants are aware of the various issues contained in the 8th NPRM in docket 96-86 and the potential implication for a reconfiguration of the wideband segment to accommodate both broadband and/or wideband technologies within existing public safety allocations. The Applicants desire to implement a 700 MHz broadband system in the future as an additional layer on top of the TIA-902 wideband system once the current regulatory issues, lack of technology standards and funding constraints are resolved making broadband viable. A repacking of the wideband channels enabled by a restructuring of the FCC rules and the Region 22 Plan would likely result in a more efficient use of the spectrum with fewer orphaned channels. From a national policy perspective such a conditional waiver would alleviate concerns regarding establishing a potentially undesirable precedent that might constrain future deployment of broadband in certain areas.

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[11] Motorola contract exhibit B-5 "System Description" – Message Load Profiles.

[12] See comments referenced in section C-4 of the FCC Report to Congress submitted pursuant to Public Law 108-458 dated December 19, 2005.

7. Strategic Project & Federal Sponsorship

The proposed wideband interoperable data system is included as a strategic project in the US Department of Homeland Security Urban Areas Security Initiative (UASI) Program and the US Department of Justice COPS Interoperability Communications Program.[13] Projects for these grant programs received peer review and demonstrated significant contributions toward furthering interoperable communications among first responders and enhancing homeland security. In many regards this project is being viewed as a national model utilizing 700 MHz wideband spectrum, standardized open architecture technology and current best practices for regional governance and operational methodology.

II. Waiver of 47 C.F.R. § 90.535 Modulation and Spectrum Usage Efficiency Requirements

1. Initial Phase – 25 kHz Occupied Bandwidth

Due to product development lead times and FCC type acceptance requirements, TIA-902 systems operating on full 50 kHz bandwidth will not be available from Motorola until 2008. The system will therefore be implemented in two phases. The initial phase to be installed in mid 2006 will utilize the TIA-902 technology with a reduced bandwidth emission of 17K7D7W. This will produce a channel data rate of up to 96 kbps in 25 kHz of occupied bandwidth. Although this technically exceeds the ratio required in 47 C.F.R. § 90.535 of 384 kbps per 150 kHz, since the occupied bandwidth of 25 kHz is less than the fully authorized channel bandwidth of 50 kHz, a waiver is applicable.

2. Contracted Upgrade to 50 kHz Occupied Bandwidth

The Applicants have pre-purchased and Motorola has committed in contract to upgrade the system in 2008 to increase bandwidth to fully occupy a 50 kHz channel producing a channel data rate of up to 230 kbps.[14] Subscriber radios will receive a firmware update and the base transceiver stations (BTS units) will receive a module upgrade along with a firmware update. Operations utilizing 17K7D7W modulation will terminate once the upgrade is completed. Motorola has indicated that 43K6D7W emission designator indicated on the license applications is preliminary and may change based on final product development and type acceptance testing.

3. 50 kHz Wideband Channel Centers

Implementing the wideband system initially on 25 kHz of occupied bandwidth centered on 50 kHz wideband data channels rather than temporarily on other 700 MHz channels such as four aggregated 6.25 kHz narrow band channels or State Block License channels allows the system to be field upgraded quickly and efficiently to 50 kHz operation without having to immediately re-channelize the system. This will avoid unnecessary costs, staff allocations and user disruptions related to engineering, frequency coordination, license modifications, retuning of combiners, reprogramming of stations, reprogramming of subscriber radios, etc. Utilizing four aggregated 6.25 kHz narrow band channels for wideband data would not support migration to 50 kHz operation and would be inconsistent with the intended purpose of the narrow band segment. Aggregating 6.25 kHz narrow band channels into 50 kHz groups would require a complete channel resort and an amendment to the Region 22 Plan. There are an insufficient number of channels in the State License Block (8 - 75 kHz aggregate channels) to replace the number of channels needed from the wideband group. Reserve wideband channels would require a substantial rule waiver. There are no reasonable alternatives to acquire the necessary channels

[13] On 9/14/04 the Board of Hennepin County Commissioners (Board) approved a contract accepting a 2004 US Department of Homeland Security Urban Areas Security Initiative (UASI) grant of which $1,097,791 was allocated to this project. On 7/26/05 the Board approved a contract accepting a 2005 UASI grant of which $1,200,000 was allocated to this project. On 11/1/05 the Board approved a contract accepting a US Department of Justice 2005 Interoperable Communications Program Grant in the amount of $5,989,443 toward this project which also expanded the scope of the existing Hennepin County project throughout the metropolitan region.

[14] Motorola contract exhibit B-8 “Statement of Work” – HSD 50 Migration.

other than utilizing both general use and interoperability wideband data channels.

4. Time Limited Interim Waiver
The waiver is requested for temporary operations using 17K7D7W modulation for a limited period commencing upon grant of station authorization through July 31, 2009. The waiver will allow the timely implementation of the system in 2006 to meet the immediate interoperability needs of public safety agencies in the Minneapolis/ St. Paul urban area within grant expenditure deadline dates of the US Department of Homeland Security and the US Department of Justice.

III. Summary & Conclusion

1. Application of the rules to the instant case would be contrary to the public interest. Application of the rules would constrain the Applicants' ability to achieve beneficial use of the system, would result in a waste of substantial public funds, and would inhibit public safety interoperability by unnecessarily leaving spectrum intended for public safety use fallow merely because the Commission is proceeding with an extended process for determination of an interoperability standard.

2. Application of the rules to the instant case would be contrary to the underlying purpose of the Commission's rules. The underlying purpose of the Commission's 700 MHz rules is to facilitate the licensing and use of vacated UHF television spectrum by public safety entities. An additional purpose is to facilitate interoperability by establishment of designated interoperability channels and technical standards. The TIA-902 wideband data standard is the only wideband standard that currently exists, is the only technology currently under consideration for the FCC's national interoperability standard and is the technology that has been purchased by the Applicants.

3. There are no reasonable alternatives available to the Applicants. The system cannot be constructed in such a way to meet the Applicants' critical public safety needs without the requested waivers. The Applicants have explored the use of alternative frequencies within the current 700 MHz public safety allocations and have determined that there are no other suitable frequencies that could be used within the framework of the FCC rules and the Region 22 plan to implement the system. The use of general category channels alone would make the system impractical and unusable because it would not meet even basic needs. Temporarily using aggregated narrow band channels for the initial phase would present an undue burden to re-channelize, would not resolve any conflicts, would be inconsistent with the purpose of the narrow band channels and would constrain use of the narrow band channels for their intended purpose. The proposed use of the wideband general category and interoperable frequencies is fully consistent with the Region 22 Plan and has been approved by the RPC.

4. The requested waivers will best serve the public interest. The requested waivers will allow immediate use of public safety spectrum for its intended purpose and permit beneficial use of a system for which considerable public funds have been committed. Applicants have executed a procurement contract with, and have issued a notice to proceed to, Motorola, Inc. to furnish and deliver a region wide interoperability backbone utilizing the TIA-902 technology. Approximately $8 million in federal grant funds and $2.5 million in local property tax funds to date have been committed to implement this system. No other use of the requested spectrum in the foreseeable future is contemplated and there will be no negative impact to any party as a result of Applicants' use. The spectrum is not constrained by incumbent television broadcasters in the Minneapolis/ St. Paul area and can therefore be put to immediate public safety use. The Federal Communications Commission has a unique opportunity at this time to help facilitate this important public safety project by timely issuance of the requested waivers.

Region 22 700 MHz Minnesota Planning Committee

April 14, 2006

Jeannie Benfaida
Public Safety and Critical Infrastructure Division
Wireless Telecommunications Bureau
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Ms. Benfaida,

On April 11, 2006 at its regular quarterly meeting the Region 22 700 MHz Planning Committee took the following actions regarding wideband general use and interoperability channels:

1. Adopted a Resolution approving the Channel Allocation Plan for the Metro Region ARMER Shared Region Wide Interoperable Data Layer as specified in sections 8.3.3 & 8.3.4 of the Region 22 700 MHz Plan submitted by the Metropolitan Emergency Services Board (MESB), February, 2006.

2. Adopted a Resolution approving FCC License Applications, including associated rule waiver requests for 47 C.F.R. §§ 90.531 (c) (1) and 90.535 (c), submitted by Hennepin County, Minnesota; Washington County, Minnesota; and the Metropolitan Emergency Services Board for the following 28 wideband channels:

    17 General Category – 31, 32, 34, 35, 43, 44, 50, 52, 54, 58, 60, 64, 66, 70, 71, 79, 88.

    11 Interoperability Category – 28, 29, 30, 37, 38, 39, 46, 48, 73, 75, 83.

In its deliberations the RPC determined that the proposed use of these wideband frequencies fully conforms to the Region 22 Plan.

The RPC also supports the rule waiver request and urges the Commission to expeditiously grant the requested rule waivers and issue the licenses so this important system can be put into beneficial use.

Sincerely,

Steve Pott
Chair, Region 22 700 MHz Planning committee

VALUES

Collective Government

Public Trust

Commitment

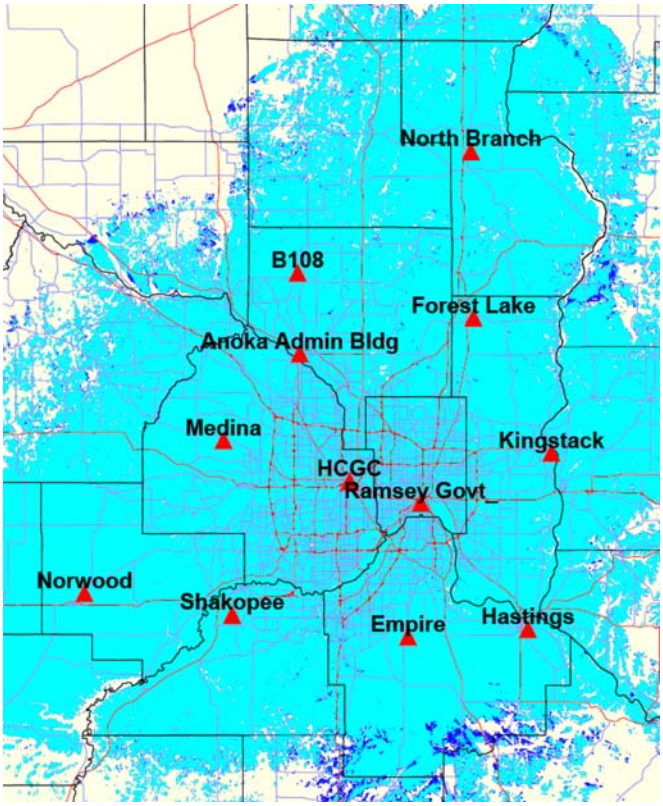
Innovation

METROPOLITAN EMERGENCY SERVICES BOARD

Channel Allocation Plan for the Metro Region ARMER Shared Regionwide Interoperable Data Layer

As Specified in Sections 8.3.3 & 8.3.4 of the Region 22 700 MHz Plan

Submitted by the Metropolitan Emergency Services Board



February, 2005

The Region 22 plan has left additional channels unassigned so that they can be assigned to neighboring regions in the border areas. The allotment plan will be coordinated with the adjacent regions.

8.3.3 Wideband Data Metro Plan

The Metropolitan Radio Board or its successor is in the process of developing a technical plan for a shared wideband data system using 50 KHz channels for the Metro area. It is anticipated that the system would first be implemented in the seven county Metro area with eventual expansion to the First Tier Collar Counties.

The RPC will accept applications for the twenty-four channels of the (A) supergroup upon its adoption of the Metro Data Plan. It is expected that the RPC planning process for the twenty-four 50 KHz channels will be an ongoing task as the network develops.

1. The purpose of the plan is to utilize the twenty-four 50 KHz channels for an integrated system(s) covering seven (7) Metro with possible expansion to twelve (12) First Tier and Collar Counties.

2. Assure that each county is afforded enough frequency resources to accommodate anticipated traffic for coverage throughout the county.

3. Base the channel reuse distance on coverage/interference criteria developed by the National Coordinating Committee.

4. Protect the (A) supergroup for the Metro and First Tier Collar counties by minimizing channel assignments in the Second Tier Collar counties.

5. It is expected that the Metropolitan Radio Board will develop a technical data network plan for the seven county metro area. The plan shall be submitted to the RPC for review by February 1, 2006. License applications will be accepted by the RPC upon approval of the plan.

6. License applications will not be approved unless compliant with the plan.

8.3.4 Wideband Data Interoperability Channels

The FCC's channel plan has designated eighteen 50 KHz channel pairs for interoperability use, as shown in the table of Appendix A. Pairs 46/166, 48/168, 73/193 and 75/196 are assigned as 50 KHz

nationwide commons with no aggregation. These interoperability channels should be considered a priority for implementation as part of a major wideband system.

The primary purpose of the wideband interoperability channels is to provide a channel for users from other areas or different systems to access a given system. An important consideration in determining how interoperability channels are used in Region 22 is whether the FCC adopts the wideband data standard as per 6.9. If the standard is adopted all subscriber units will be able to access any system on interoperability channels.

Region 22 is encouraging agencies to integrate their systems so that interoperability is inherent in the resulting network. In many cases this will allow interoperability whether the data standards are adopted or not and the main function of the interoperability channels will be to allow users from other areas to access the system.

A licensee implementing interoperability channels is permitted to maintain day-to-day communications on the channels provided that the applicant/licensee demonstrates that the system has enough capacity available to accommodate interoperability events.

While it may be desirable for the Regional Planning Committee to permit wideband radio systems to incorporate one or more of the interoperability channels into a single system as a means of enhancing the use of the system for interoperability purposes (and by implication allow those channels to be routinely used for normal day to day communications), care must also be given to ensure that those channels do not become such an integral part of the daily wideband data system operation that it becomes politically and technically impossible to extract them from the wideband data system in the event of an emergency event having higher priority. For this reason the Region Planning Committee limited the number of interoperability channels that may be integrated into any single wideband system to the following;

For systems having three or fewer 50 KHz channels allocated, one (1) 150 KHz contiguous interoperability group is permitted. For systems having more than six (6) 50 KHz channels, two (2) interoperability 150 KHz contiguous groups channel sets are permitted.

8.3.5 Interoperability Assignments

The purpose of assigning specific wideband interoperability channels at this time is to facilitate planning for the most likely agencies that can fund implement effective and widely - used interoperability systems.

The RPC assigns pairs 28/148, 29/149, 30/150 for implementation by the Metro integrated system. It also assigns pairs 37/157, 38/158, 39/159, 82/202, 83/203, and 84/204 to state government for statewide implementation.

The remaining wideband interoperability groups are left unassigned for use as needed in order to maintain an open, flexible plan.

8.3.6 Region 22 Intelligent Transportation Communication Infrastructure

The RPC recommends the assignment of channel pairs 47/167 and 74/194, on the basis of non-interference to the Nationwide Interoperability data channels, for applications related to Intelligent Transportation Systems as follows and as per attachment 16.

Statewide DGPS Broadcast System

Channel pair 47/167 is utilized in a region-wide DGPS system, providing interoperability for surveying and Intelligent Transportation System (ITS) applications among state, county and municipal governments.

Dedicated Long Range Communications (DLRC)

Channel pair 74/194 is utilized, in region-wide Intelligent Transportation System (ITS), providing dedicated long range communications for applications serving official highway maintenance and public safety. Channel is intended to fill wireless communications gap between deployments of Dedicated Short Range Communications (DSRC) sites.

8.4 Allotment Variances:

The general channel allotment can be considered a first cut for frequency planning for the Region. It is however, an essential step of the process in order to ensure coordination between regions. It allows agencies in any location to plan communications systems with a reasonable assurance that enough channels will be available to implement a useful modern communications system. Changes in the plan are expected especially after the five-year review.

An agency can apply for any channel regardless of the general or wideband channel allotment plan if it can demonstrate that it meets the plan's coverage/interference criteria, when compared with the plan's co-channel and adjacent channel licensees and allotments and can be coordinated with adjacent regions.

There are circumstances such as where an applicant may require a variance of the maximum service area such as where a site is near a county border or if the user anticipates signal overshoot because of an unusual in-building coverage requirement. At the discretion of the RPC, certain variances in maximum service area may be allowed if there are no co-channel users in that direction. Variances will be considered by the RPC on a case by case basis. The RPC will require applicants to provide detailed coverage/interference predictions in the application process.

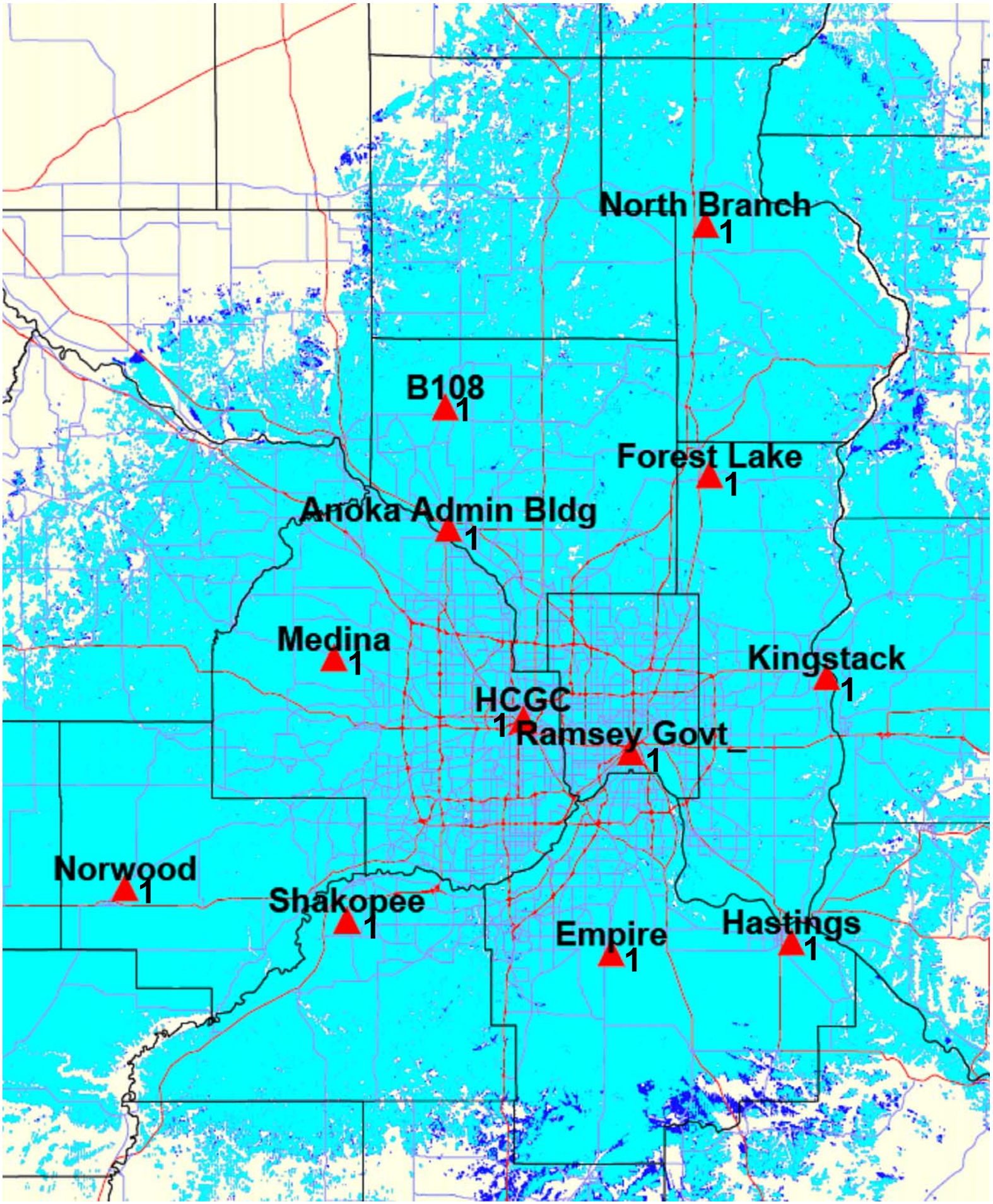
8.5 Expansion on Initial Allocation:

In the event that the allocation for any county becomes depleted, the Region Planning Committee shall meet to make further allocations to said county. Should this occur, the applying agency or entity shall submit the proper license and coordination applications with all applicable fees, as in any other licensing request. Allocations will be made based on the initial frequency allocation plan as mentioned above, taking into consideration orphan channels, which were returned to the reserve pool.

8.6 Annexations and Other Expansions:

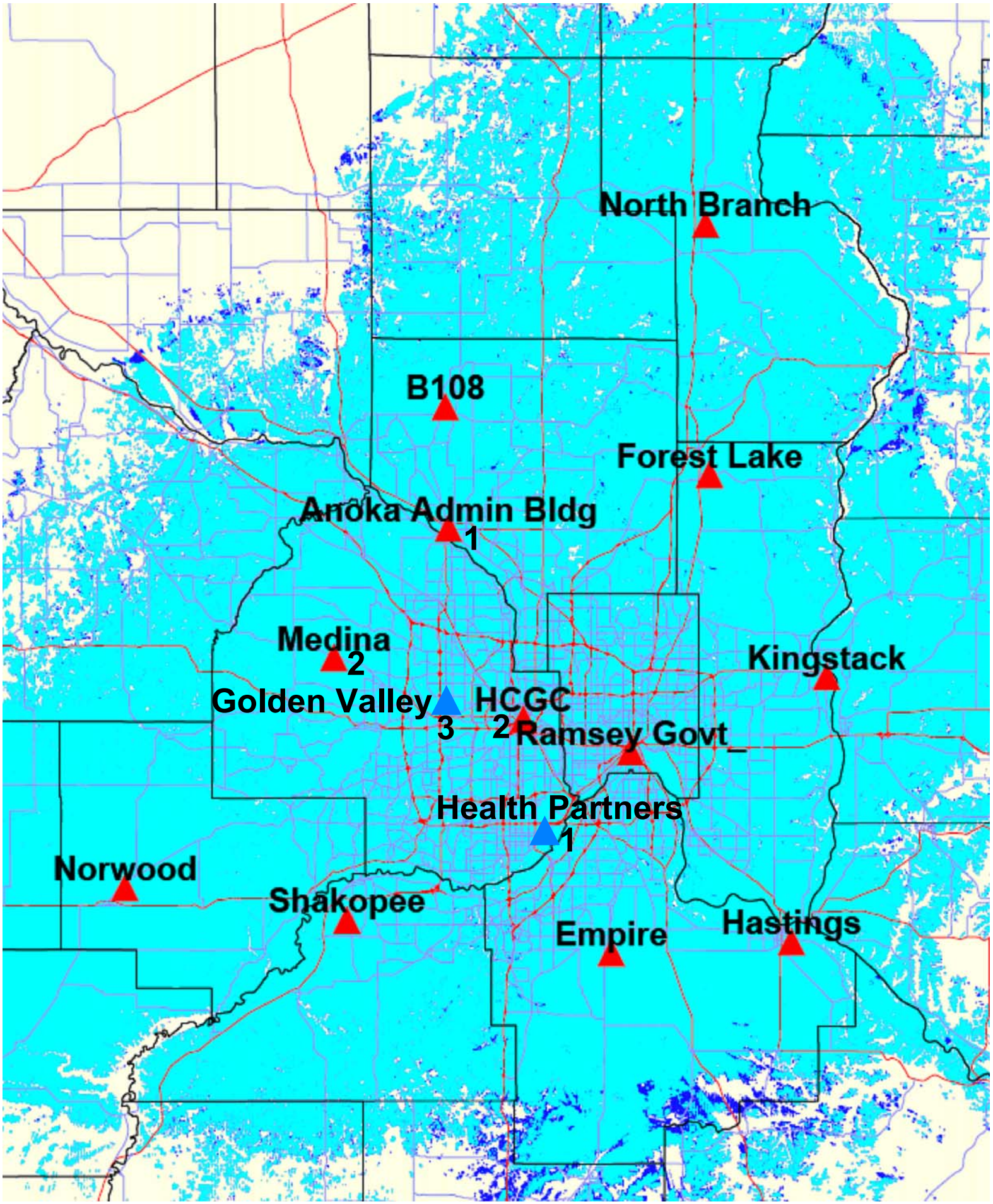
It is well known that as cities grow, annexations occur. When an expansion of the present city limits of any city currently using 700 MHz system within the spectrum as herein specified occurs, it is understood that the existing system may have to be expanded and its range increased. This is a modification and may be permitted. The increased range of the system will have to be determined at the time of modification to assure non-interference with any other existing system. Where interference is likely, the use of alternate methods of expansion, such as satellite systems or multiple transmitters sites with reduced heights may be necessary. Should the annexation or expansion of a city effectively take in all or most of a county, the allocation for that county may be given to the city if required by said city and not in use or planned to be used by the county. Where more spectrum is not available from the initial allocation, the rules for expansion of initial allocation, as contained in this plan, shall apply.

First Phase Regional Channels - 12



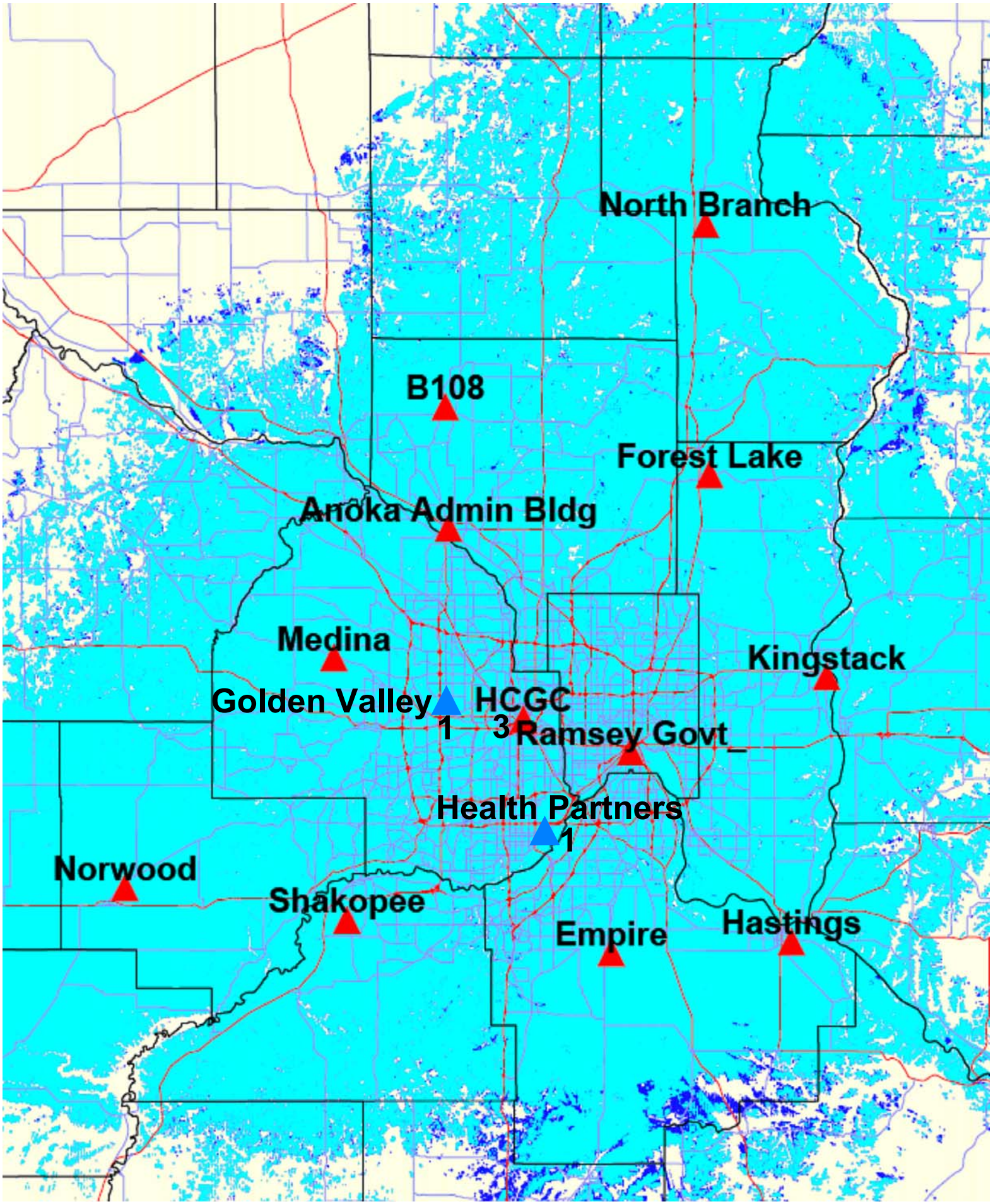
Potential HSD Users - 480

Hennepin County Channels - 9



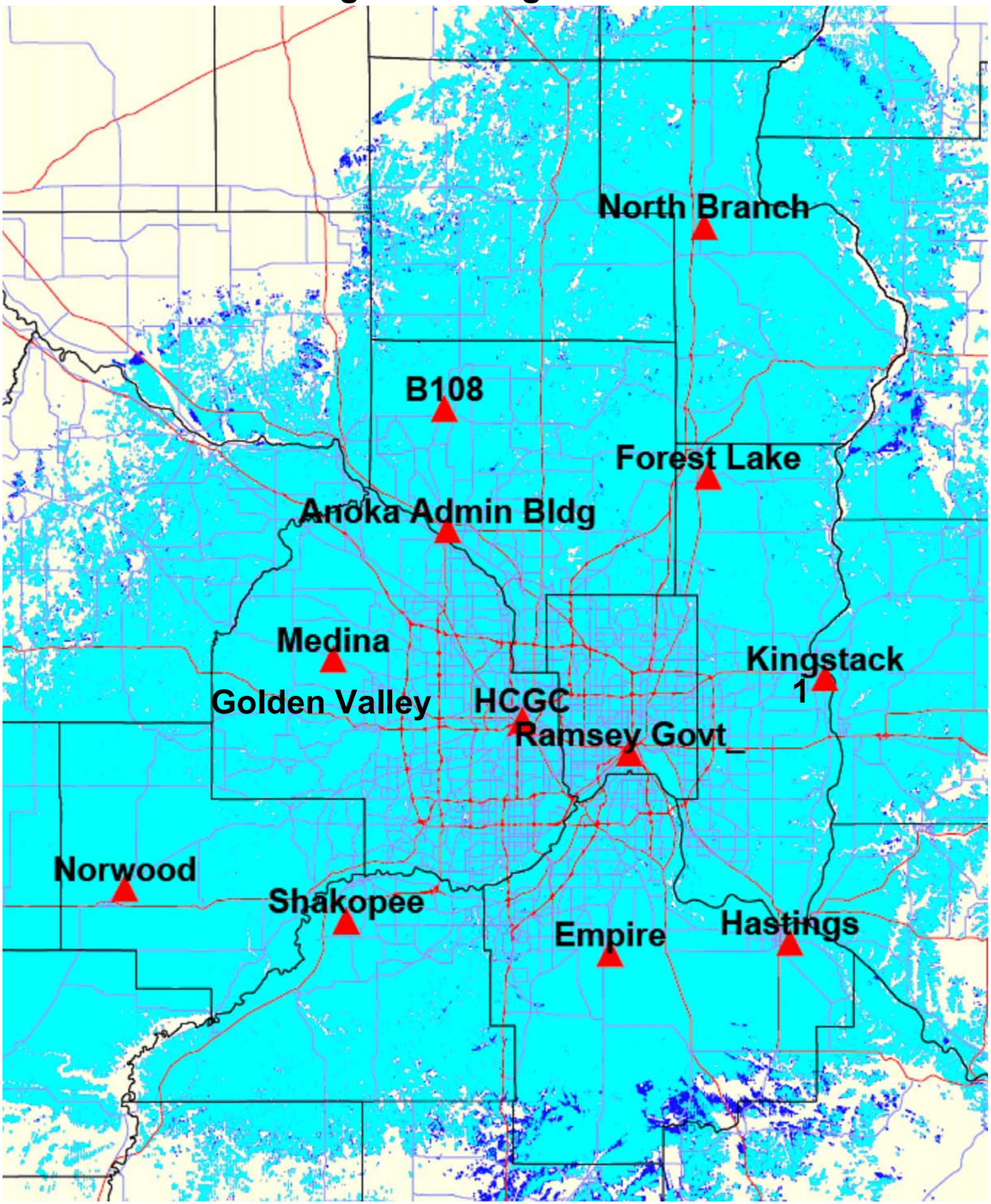
Potential HSD Users - 360

Minneapolis Channels - 5



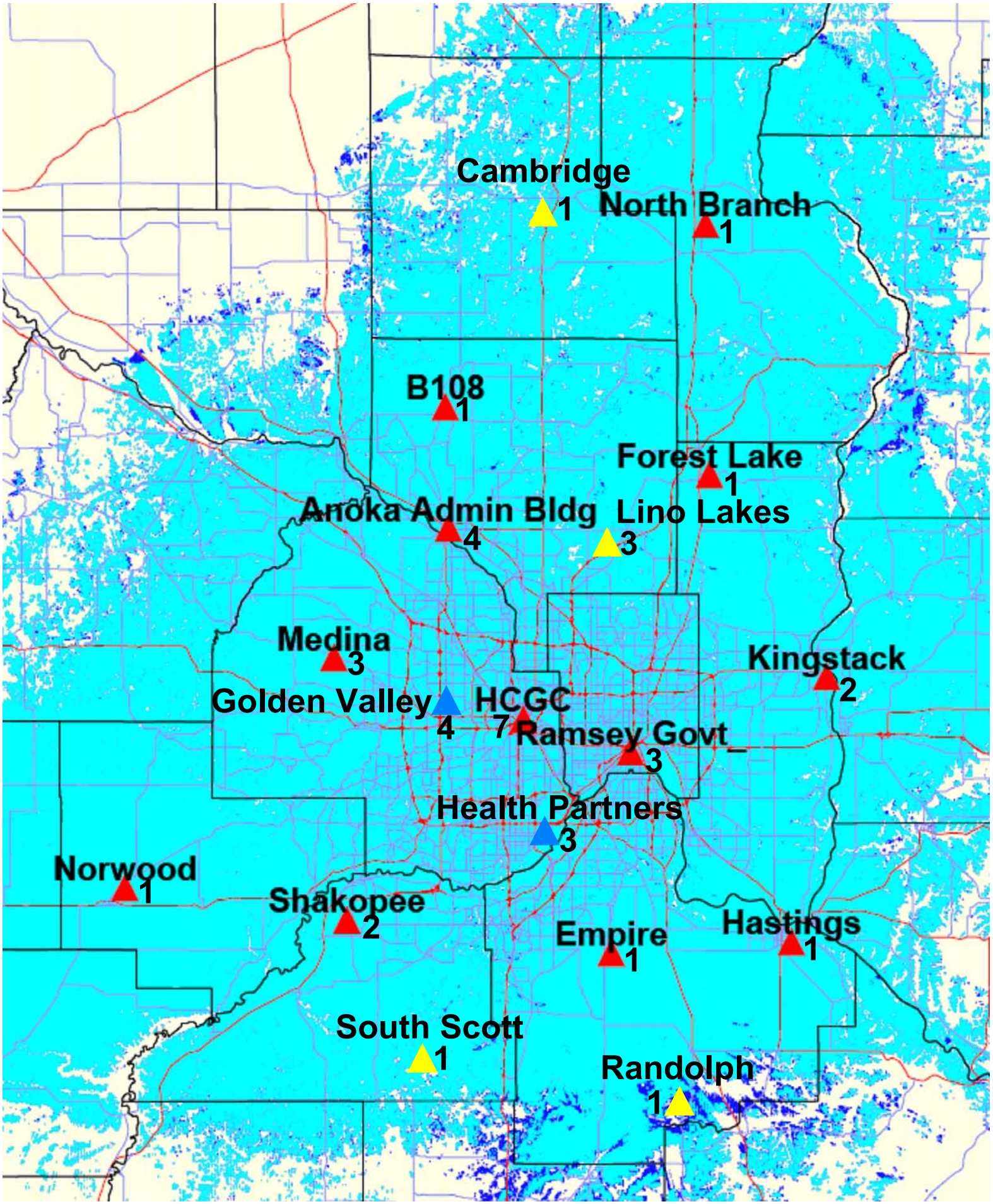
Potential HSD Users - 200

Washington/ Chisago Channels - 1



Potential HSD Users - 40

Potential Full Buildout Channels - 40



Potential HSD Users - 1600

Region 22 Plan Wide Band Channel Allocations (66 Total)			
County Assigned - 24	Metro Region Wide - 24	Interoperability - 18	Reserved Future Use - 54

MESB Metro Region Plan (27 Initial - 40 Full Potential)			
Phase 1 Regional - 12	Phase 1 Local - 15	Future Phases - 13	Unused - 26

Region 22 Plan Wideband Allocations

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27
28 Metro	29 Metro	30 Metro	31 Henn	32 Henn	33 Henn	34	35	36
37 Statewide	38 Statewide	39 Statewide	40 Rams	41 Rams	42 Rams	43	44	45
46	47 ITS-DGPS	48	49 Wash	50 Wash	51 Wash	52	53	54
55 Carv	56 Carv	57 Carv	58	59	60	61 Scott	62 Scott	63 Scott
64	65	66	67 Dak	68 Dak	69 Dak	70	71	72
73	74 ITS-DLRC	75	76 Anok	77 Anok	78 Anok	79	80	81
82 Statewide	83 Statewide	84 Statewide	85 Wrig	86 Wrig	87 Wrig	88	89	90
91	92	93	94	95	96	97	98	99
100	101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116	117
118	119	120						

Phase 1 - Regional Interoperability Backbone - 12 Sites, 1 Channel Each

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27
28 Empire	**29 B108**	**30 Norwood**	31 Henn	**32 Henn HCGC**	33 Henn	34	35	36
37 Hastings	**38 Forest Lake**	**39 Shakopee**	40 Rams	41 Rams	42 Rams	**43 North Branch**	44	45
46 Anoka GC	47	48	49 Wash	50 Wash	51 Wash	52	53	54
55 Carv	56 Carv	57 Carv	58	59	60	61 Scott	62 Scott	63 Scott
64	65	66	67 Dak	68 Dak	69 Dak	70	71	72
73 Medina	74	**75 Ramsey GC**	76 Anok	77 Anok	78 Anok	79	80	81
82	**83 King Stack**	84	85 Wrig	86 Wrig	87 Wrig	88	89	90
91	92	93	94	95	96	97	98	99
100	101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116	117
118	119	120						

Region 22 Plan Wide Band Channel Allocations (66 Total)			
County Assigned - 24	Metro Region Wide - 24	Interoperability - 18	Reserved Future Use - 54

MESB Metro Region Plan (27 Initial - 40 Full Potential)			
Phase 1 Regional - 12	Phase 1 Local - 15	Future Phases - 13	Unused - 26

Phase 1 - Local Enhancements in Chisago County, Hennepin County, City of Minneapolis & Washington County
2 Additional Sites (Golden Valley & Health Partners), 15 Total Additional Channels

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27
28 Empire	29 B108	30 Norwood	31 Henn	32 Henn HCGC	33 Henn	**34 HCGC**	**35 HCGC**	36
37 Hastings	38 Forest Lake	39 Shakopee	40 Rams	41 Rams	42 Rams	43 North Branch	**44 Medina**	45
46 Anoka GC	47	**48 Golden Valley**	49 Wash	**50 Wash King Stack**	51 Wash	**52 Anoka GC**	53	**54 Golden Valley**
55 Carv	56 Carv	57 Carv	**58 Health Partners**	59	**60 HCGC**	61 Scott	62 Scott	63 Scott
64 Golden Valley	65	**66 Medina**	67 Dak	68 Dak	69 Dak	**70 HCGC**	**71 HCGC**	72
73 Medina	74	75 Ramsey GC	76 Anok	77 Anok	78 Anok	**79 Golden Valley**	80	81
82	83 King Stack	84	85 Wrig	86 Wrig	87 Wrig	**88 Health Partners**	89	90
91	92	93	94	95	96	97	98	99
100	101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116	117
118	119	120						

Future Phases - Potential Local Enhancements in Remainder of Metro Area
4 Additional Sites (Cambridge, Lino/ or White Bear Lake, Randolph & Southern Scott County), 13 Total Additional Channels

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27
28 Empire	29 B108	30 Norwood	**31 Henn HCGC (Ramsey)**	32 Henn HCGC	33 Henn	34 HCGC	35 HCGC	**36 Cambridge**
37 Hastings	38 Forest Lake	39 Shakopee	40 Rams	**41 Rams Ramsey GC**	**42 Rams Ramsey GC**	43 North Branch	44 Medina	**45 Randolph**
46 Anoka GC	47	48 Golden Valley	49 Wash	50 Wash King Stack	51 Wash	52 Anoka GC	53	54 Golden Valley
55 Carv	**56 Carv Shakopee**	57 Carv	58 Health Partners	59	60 HCGC	61 Scott	**62 Scott Southern Scott**	63 Scott
64 Golden Valley	65	66 Medina	67 Dak	**68 Dak Health Partners**	69 Dak	70 HCGC	71 HCGC	72
73 Medina	74	75 Ramsey GC	76 Anok	**77 Anok Lino Lakes**	78 Anok	79 Golden Valley	80	**81 Lino Lakes**
82	83 King Stack	84	85 Wrig	86 Wrig	87 Wrig	88 Health Partners	89	**90 Anoka GC**
91 Anoka GC	92	**93 Lino Lakes**	94	95	96	97	98	99
100	101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116	117
118	119	120						

Region 22 Plan Wide Band Channel Allocations (66 Total)			
County Assigned - 24	Metro Region Wide - 24	Interoperability - 18	Reserved Future Use - 54

MESB Metro Region Plan (27 Initial - 40 Full Potential)			
Phase 1 Regional - 12	Phase 1 Local - 15	Future Phases - 13	Unused - 26

Unused Channels - 26, Plus 54 Channels Reserved for Future FCC Rulemaking

Ring County Use, Capacity Expansion, Statewide, Interop Simplex, 100/150 kHz Aggregrate Expansion, ITS, General Use, Reserve, etc.

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27
28 Empire	29 B108	30 Norwood	31 Henn HCGC (Ramsey)	32 Henn HCGC	**33 Henn**	34 HCGC	35 HCGC	36 Cambridge
37 Hastings	38 Forest Lake	39 Shakopee	**40 Rams**	41 Rams Ramsey GC	42 Rams Ramsey GC	43 North Branch	44 Medina	45 Randolph
46 Anoka GC	**47 ITS-DGPS**	48 Golden Valley	**49 Wash**	50 Wash King Stack	**51 Wash**	52 Anoka GC	**53**	54 Golden Valley
55 Carv	56 Carv Shakopee	**57 Carv**	58 Health Partners	**59**	60 HCGC	**61 Scott**	62 Scott Southern Scott	**63 Scott**
64 Golden Valley	**65**	66 Medina	**67 Dak**	68 Dak Health Partners	**69 Dak**	70 HCGC	71 HCGC	**72**
73 Medina	**74 ITS-DLRC**	75 Ramsey GC	**76 Anok**	77 Anok Lino Lakes	**78 Anok**	79 Golden Valley	**80**	81 Lino Lakes
82 Statewide	83 King Stack	**84 Statewide**	**85 Wrig**	**86 Wrig**	**87 Wrig**	88 Health Partners	**89**	90 Anoka GC
91 Anoka GC	**92**	93 Lino Lakes	94	95	96	97	98	99
100	101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116	117
118	119	120						

Minneapolis
City of Lakes

Police Department
William P. McManus
Chief of Police

350 South 5th Street – Room 130
Minneapolis MN 55415-1389

Office 612 673-2853
TTY 612 673-2157

July 11, 2005

U. S. Department of Justice
Office of Community Oriented Policing Services
1100 Vermont Avenue N.W.
Washington, D.C. 20530

To Whom It May Concern:

The Minneapolis Police Department (MPD) received a solicitation relating to the COPS Interoperable Communications Technology Program. After careful review of this offering, and consultation with other regional partners as represented by the Metropolitan Emergency Services Board, MPD has agreed to assign lead agency status for this project to the Hennepin County Sheriff's Office (HCSO).

HCSO understands that by accepting lead agency status it will be responsible for grant preparation and submission, provision of the 25% local cash match, project management, and compliance with the monitoring, reporting and evaluation requirements established by the COPS Office.

The attached grant application requests funding for an interoperable 700 MHz high speed wireless data communications system. The proposed equipment is vital to the establishment of a wide area, multi-jurisdictional interoperable wireless data communications system for use by public safety agencies in the Minneapolis – St. Paul MSA.

Users will include the entire public safety sector throughout the region. Each of the 30 agencies that operate 9-1-1 Public Safety Answering Points (PSAPs) throughout the metro region will be provided with basic wireless connectivity for interoperable data communications.

Initial day to day full participation users will include the City of Minneapolis, the Hennepin County Sheriff's Office, plus the 22 additional suburban police and 19 suburban fire departments serving the 35 municipalities that receive 9-1-1 services from the Hennepin County Sheriff's Office.

Planning for this interoperable wireless data system has been underway for three years. The costs to implement this system exceed the funds currently available from state and local sources and federal funding is vital for the purchase of necessary equipment as outlined in this grant request.

We believe that the award of this grant will significantly improve the effectiveness of our first responders by providing an interoperable data system that does not presently exist in this region. We strongly endorse the goals and objectives outlined in this grant proposal and recommend that it be funded.

Sincerely,

William P. McManus
Chief of Police

Patrick D. McGowan
Hennepin County Sheriff

METROPOLITAN
EMERGENCY
SERVICES
BOARD

Metro Counties
Government Center

2099 University Ave. W
Suite 201
Saint Paul, Minnesota
55104-3431

Phone: (651) 643-8395
Fax: (651) 603-0101

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- Washington
- City of Minneapolis

July 13, 2005

U. S. Department of Justice
Office of Community Oriented Policing Services
1100 Vermont Avenue N.W.
Washington, D.C. 20530

To Whom It May Concern:

The Metropolitan Emergency Services Board (MESB) has adopted a Resolution supporting the COPS grant application submitted by the Hennepin County Sheriff's Office to seek funding for the Minneapolis – St. Paul area multi-jurisdictional interoperable wireless data communications system. The MESB also concurs with the transfer of lead agency designation from the Minneapolis Police Department to the Hennepin County Sheriff's Office for this grant.

The MESB is a "Regional Radio Board" authorized by Minn. Stats. § 403.39. Signatory jurisdictions representing a regional population of 2,715,877 are: Anoka County, Carver County, Dakota County, Hennepin County, Ramsey County, Scott County, Washington County and the City of Minneapolis.

The interoperable wireless data project in the Minneapolis – St. Paul area is being facilitated and governed by the MESB, a joint powers entity representing local units of government in the seven county Minneapolis – St. Paul metropolitan area. The MESB's regional Data Layer project has been developed in cooperation with the Minnesota Department of Public Safety and the Minnesota Statewide Radio Board. Hennepin County has been participating as a planned initial full participant.

This project will, for the first time, bring desperately needed interoperable mobile data communications to this metropolitan region using the new 700 MHz wideband data channels. The need for this system is critical because of the current lack of any wireless data interoperability among public safety agencies in the region. The need for a region wide interoperable wireless data system was recognized the MESB's predecessor, the Metropolitan Radio board, which adopted a Plan for a Region Wide Data layer in 2003. The MESB has appointed a Data Layer Project Team to solicit system information from possible vendors. Detailed responses have been received and are currently being evaluated.

The need for the COPS grant is critical since the regional shared backbone of the project has not been funded. This regional backbone would provide the main switching equipment plus a layer of interoperable data coverage throughout the entire region. This backbone would provide both an important interoperability capability, plus the baseline network that local agencies can enhance as needed as they migrate their full operations to the system for their day to day public safety use. The COPS grant will also provide funding to allow the City of Minneapolis to join the system as an initial full participant along with Hennepin County and the 36 suburban municipalities within the county.

Sincerely,

Nancy Pollock

Nancy Pollock
Executive Director

MINNESOTA DEPARTMENT OF PUBLIC SAFETY

Office of the Commissioner

445 Minnesota Street • Suite 1000 • Saint Paul, Minnesota 55101-5100
Phone: 651.296.6642 • Fax: 651.297.5728 • TTY: 651.282.6555
www.dps.state.mn.us

July 12, 2005

Alcohol and Gambling Enforcement

ARMER/911 Program

Bureau of Criminal Apprehension

Driver and Vehicle Services

Homeland Security and Emergency Management

Minnesota State Patrol

Office of Communications

Office of Justice Programs

Office of Traffic Safety

State Fire Marshal and Pipeline Safety

U. S. Department of Justice
Office of Community Oriented Policing Services
1100 Vermont Avenue N.W.
Washington, D.C. 20530

To Whom It May Concern:

I am writing to express my support for the COPS grant application submitted by the Hennepin County Sheriff's Office to seek funding for the Minneapolis – St. Paul area interoperable mobile data communications project. This project will, for the first time, bring desperately needed interoperable mobile data communications to this metropolitan region using the new 700 MHz wideband data channels.

The interoperable wireless data project in the Minneapolis – St. Paul area is being facilitated and governed by the Metropolitan Emergency Services Board, a joint powers entity representing all local governments in the seven county metropolitan area including Hennepin County. This regional project has been developed in cooperation with the Minnesota Department of Public Safety's Division of Homeland Security and Emergency Management and the Minnesota Statewide Radio Board.

Minnesota has placed a very high priority upon providing public safety responders with the information they need to effectively protect the public. This system provides a critical link in furthering that objective by providing wireless data interoperability among public safety agencies in the region. It is the vision of the Minnesota Department of Public Safety that the interoperable data system will ultimately be available statewide as funding becomes available.

In summary, this project is vital to the immediate needs of the Minneapolis – St. Paul metropolitan region and the longer term data interoperability requirements of our law enforcement partners throughout the State of Minnesota. I recommend that this grant be considered for funding at this time.

Sincerely,

Michael Campion
Commissioner

MINNESOTA DEPARTMENT OF PUBLIC SAFETY

Homeland Security and Emergency Management

444 Cedar Street • Suite 223 • Saint Paul, Minnesota 55101-6223
Phone: 651.296.2233 • Fax: 651.296.0459 • TTY: 651.282.6555
www.dps.state.mn.us

July 12, 2005

Alcohol and Gambling Enforcement

ARMER/911 Program

Bureau of Criminal Apprehension

Driver and Vehicle Services

Homeland Security and Emergency Management

Minnesota State Patrol

Office of Communications

Office of Justice Programs

Office of Traffic Safety

State Fire Marshal and Pipeline Safety

U. S. Department of Justice
Office of Community Oriented Policing Services
1100 Vermont Avenue N.W.
Washington, D.C. 20530

To Whom It May Concern:

The Minnesota Department of Public Safety's Division of Homeland Security and Emergency Management (HSEM) is the designated coordinating agency for the State Homeland Security Grant Programs administered by the US DHS Office of State and Local Government Coordination and Preparedness Program (SLGCP).

HSEM is in full support of the US DOJ COPS grant application by the Hennepin County Sheriff's Office for the first phase of a region wide, standards based, interoperable wireless data layer in the Minneapolis – St. Paul region.

This Data Layer project is included as a key element in the region's Urban Area Securities Initiative (UASI) program, and has received partial funding from that program for a portion of the system in Hennepin County.

The COPS grant is very important because the regional backbone elements of the system, including the wide area interoperability components, are currently not included in any other funding plan. Securing the COPS grant will enable moving forward with deployment of this key system which will add data interoperability to the existing voice interoperability within the Minneapolis – St. Paul region.

This system, if made possible by the COPS program funding, will be included in subsequent versions of the State's response strategy and Tactical Communications Interoperability Plan.

Sincerely,

Al Bataglia
Director

Notation from Motorola regarding System Description and Statement of Work contract documents attached this filing:

"The documents have been reviewed by Motorola to determine that they do not contain trade secret information, disclosure to the FCC for the limited purpose of substantiating the project from a licensing perspective is not objectionable. Note that the County should be advised that the documents must remain marked as Motorola Confidential and Proprietary and that the County should advise the FCC that Motorola retains all its legal rights both with respect to the confidentiality of the documents and the intellectual property contained therein."

SECTION 3 EXHIBIT B-5

DATA LAYER SYSTEM DESCRIPTION

TABLE OF CONTENTS

HIGH-PERFORMANCE DATA

PRIMARY RADIO INFRASTRUCTURE PROJECT OVERVIEW

The 700MHz ASTRO®25 High Performance Data Network offering is the first phase of a multi-tiered data system approach. Subsequent enhancements of this system with 700MHz High Speed Data (HSD) will open up the network to increasingly sophisticated data services for Hennepin County and regional users.

Motorola has designed a 700MHz ASTRO®25 High Performance Data Network for Hennepin County. The proposed system includes one Master Site at the Golden Valley Site and twelve regional ASTRO®25 High Performance Data (HPD) Sites at the Medina, Norwood, Shakopee, Empire Tower, Hastings, Ramsey County Building, B108, Anoka Government Center, North Branch, Kingstack, Forest Lake, and Hennepin County Government Center (HCGC). Each of the regional sites will be equipped with one (1) HPD channel, for a total of twelve (12) HPD channels. Based on the load profile, less the video component, the Hennepin County data solution will consist of five sites, the Medina site will include two (2) HPD channels, the Golden Valley site will include four (4) HPD channels, Anoka County Government Center site will include one (1) HPD channel, the Health Partners site will include two (2) HPD channels, and the HCGC site will include five (5) HPD channels, for a total of fourteen (14) HPD channels. The Hennepin County ASTRO®25 High Performance Data (HPD) Network compliments Motorola's Project 25 Mission Critical Platform and serve as the backbone for a scalable interoperable multi-agency network. It will:

- Provide reliable mobile data communications using state-of-the-art technology
- Provide a migration path to a standards based, open-architecture platform.
- Be upgradeable to support future 700 MHz Wide Band data technologies
- Be capable of supporting multiple data networks such as 4.9 GHz Mesh and other private and/or public networks with the ability to roam between networks using mobile router technology
- Provide the ability to expand the service area as Hennepin County and other agencies are added to the system
- Operate in Public Safety Licensed Spectrum

SYSTEM ARCHITECTURE

ASTRO®25 HPD systems contain many of the familiar components of a traditional wireline data network. Motorola will construct an Ethernet Local Area Network at the Master and Base sites. It will connect to the Hennepin County Wide Area Network

(WAN) to provide T1 connectivity between the Master and Base sites. Routers and switches will be connected to the LAN to provide IP routing between the Master site network control equipment such as the network management terminals, data gateway, security components and WAN link out to the Base sites. Motorola's GPRS Gateway Service Node (GGSN) provides mobile data terminal authentication by passing the credentials to the Customer Enterprise Network (CEN). Consequently, at Base sites, ASTRO®25 HPD controllers and repeaters will connect to the site switch, router and will utilize diversity receive antenna system.

SYSTEM DESIGN

Motorola has designed a migratable 700MHz ASTRO®25 HPD Network for Hennepin County. Motorola is including a base ASTRO (SmartZone 7.1) High Performance Data (HPD) system with the flexibility to migrate to High Speed Data (HSD) solution in the future. The design includes one Master Site at Golden Valley, five ASTRO25 HPD Sites for Hennepin County, and twelve ASTRO 25 HPD Sites for the regional system. Based on the load profile, less video component, the complete system will consist of fifteen sites, broken out as follows:

- Medina site will include three (3) HPD channels, two channels for Hennepin County capacity and one channel for the regional capacity.
- Anoka Government Center site will include two (2) HPD channels, one channel for Hennepin County capacity and one channel for regional capacity.
- Health Partners site will include two (2) HPD channels for Hennepin County capacity.
- Golden Valley site will include four (4) HPD channels for Hennepin County capacity.
- Shakopee site will include one (1) HPD regional channel
- Norwood site will include one (1) HPD regional channel.
- B108 site will include one (1) HPD regional channel.
- North Branch site will include one (1) HPD regional channel.
- Kingstack site will include one (1) HPD regional channel.
- Forest Lake site will include one (1) HPD regional channel.
- Hastings site will include one (1) HPD regional channel.
- Empire Tower site will include one (1) HPD regional channel.

- Ramsey County Building site will include one (1) HPD regional channel.

- HCGC site will include six (6) HPD channels, five channels for Hennepin County capacity, and one channel for the regional capacity. This is considered two sites, since the maximum number of channels at a site is five.

The complete design will be for a total of twenty six (26) HPD channels. The system is expandable to support up to 20 base sites. Each base site will support up to 5 channels each. The ASTRO®25 HPD systems can be upgraded to support additional sites and channels if required.

The Golden Valley Master Site will ship as a SmartZone 7.1 System Release, it will include the necessary network servers to establish data links between five different customer enterprise networks and the mobile data terminals. One the major components of the master site is the Zone Database Server (ZDS). The ZDS software licenses will initially support a total of 20 HPD sites and 1,000 mobile data terminals. For ASTRO®25 HPD systems, the system supports up to 20,000 user licenses and up to 100 HPD channels. Future licenses may be added to the Hennepin County Data system at a later time. The full SmartZone switch option extends the master site limit to 100 base sites per zone and 300 HPD channels per zone.

COVERAGE AND SITE SELECTION

Coverage Prediction Maps have been included as part of this contract (section B-6) using the fifteen sites (two sites are co-located at HCGC). These sites are broken into a Hennepin County solution and a regional solution . For the contracted design, various channels will be used at each base site for a total of twenty six (26) 25kHz 700MHz frequencies. Hennepin County is responsible for acquiring the necessary FCC waivers to operate a 25kHz HPD base radio on a 50kHz licensed frequency. Hennepin County is responsible for investigating and mitigating existing or future sources of internal and/or external interference or intermodulation at the existing sites.

Motorola will only be responsible for mitigating interference or intermodulation resulting from Motorola provided equipment. Motorola can provide an intermodulation study, if Hennepin County provides related frequency and antenna locations for the identified sites.

THROUGHPUT

Capacity and throughput are dependent on many performance factors such as message load profiles of all applications running on mobile computers in the wireless network, network protocol (TCP/IP or UDP/IP) used, network traffic load and coverage reliability. Performance is optimized if the mobile application software has been written specifically for and successfully implemented in a wireless environment.

Motorola strongly recommends that Hennepin County consider all of these performance implications when selecting a mobile application software system.

ASTRO®25 HPD systems are designed for deployment as a citywide system, countywide system, statewide system, or country-wide systems by utilizing a "zone concept" that allows systems to be networked together to form a larger system requiring no intervention by the end-user as he traverses "zones".

The system can support up to five ASTRO®25 HPD channels per site in a typical system with up to 1,000,000 messages per hour per system. The number of channels per zone is limited to 300. Message throughput may vary depending on system configuration.

NETWORK INTERFACE

Motorola has included equipment to support ten Customer Network Interface Barrier (CNIB). The CNIB is a connectivity point for the Hennepin County external host system to the secure ASTRO®25 HPD network infrastructure. For example, it could be the connection point for the new Hennepin County CAD system which houses servers and workstations.

The connection between the Hennepin County Host network and the ASTRO®25 HPD network is IP over Ethernet. The end-to-end IP network transports user data and control information between LAN-based computers and wireless computers in the field. Both USB and Ethernet connections are available with Motorola's ASTRO®25 HPD modem allowing wireless computers to access the network through a PPP interface.

Physical and Logical Demarcation Points

Host Interface

Motorola's physical demarcation point on the Host end will be the Border Router's WAN port that provides a physical connection point for the Hennepin County Customer Enterprise Network (CEN). Hennepin County must connect their CEN using a network switch or router to the Border Router WAN port. All equipment required to faciliate this connection will be provided by Hennepin County.

The Network Interface Barrier (NIB) will be Motorola's logical demarcation point on the Host end. First, Core security components such as the Firewall, Intrusion Detection Sensor and CSMS (Core Security Management Server) will manage access to the ASTRO®25 HPD network from the CNIB. If access is permitted, the GGSN (Gateway GPRS Support Node) will establish secure VPN tunnels to perform IP packet routing to and from the CEN. For example, it will forward mobile authentication requests to the authentication server in the Hennepin County's Host network. In order for Host and mobile traffic to flow across the CNIB, all software

applications must be written to a standard TCP/IP or UDP/IP interface. They also must fall into the policies estalished in Core Security Management Server (CSMS).

Mobile Interface

There are two physical demarcation points on the mobile end. The first is the ASTRO®25 HPD modem Ethernet or USB port on the mobile computer, such as the ML900. The second is the GPS serial COM port on the mobile computer.

For the logical network interface, Hennepin County's mobile application software must be capable of communicating to the ASTRO®25 HPD modem through a PPP interface. The mobile application software must be written to a standard IP Communication Stack for transport across the ASTRO®25 HPD network.

In order for mobile traffic to flow across the system, all software applications must be written to a standard TCP/IP or UDP/IP interface. Traffic flow will be directed on an RF level through the ASTRO®25 HPD base sites and then on a network level to the Packet Data Gateway (PDG) and GGSN for routing to the CEN. For a mobile subscriber to gain access to the system, it must be authenticated by the Hennepin County Host network via the GGSN. Message traffic must also fall into the policies estalished in Core Security Management Server (CSMS).

For functional acceptance testing purposes, Motorola will demonstrate successful link connectivity of the proposed ASTRO®25 HPD System by passing traffic to/from a test mobile unit, through the GGSN interface to a host placed within the Hennepin County Customer Enterprise Network (CEN). A simple file transfer or standard Ping will be used to verify link connectivity between the mobile and host. As such, the host can be any computer with a valid IP address connected to the physical and logical interfaces described above.

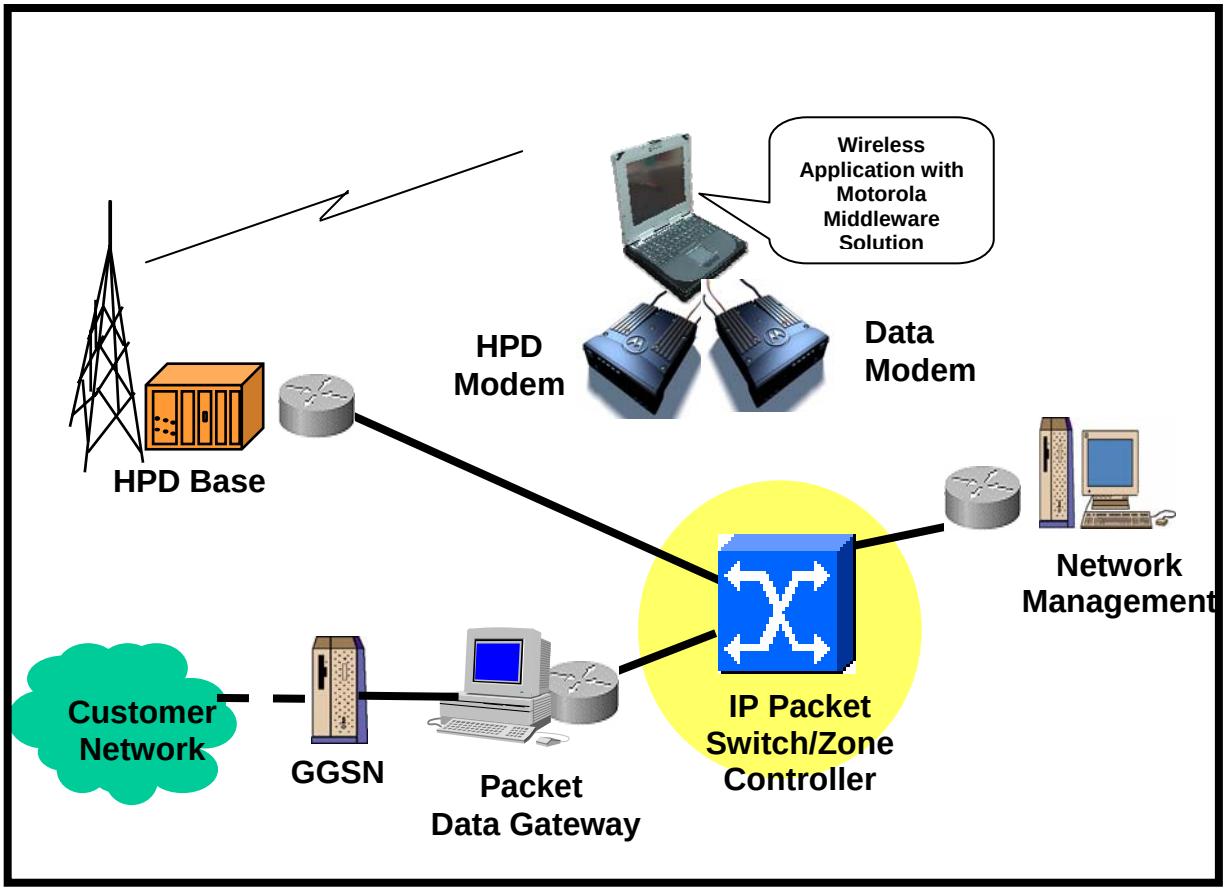


Figure 1: ASTRO®25 High Performance Data Overview

FIXED END COMPONENTS

ASTRO®25 HPD

The following system components are included:

Master Site Equipment – Golden Valley Site

- Redundant Zone Controller
- Site Licenses (20) Expandable with Full SmartZone switch option
- User Licenses (1000) Expandable
- ASTRO®25 HPD Software
- Network Management Servers – (1) Zone Database Server, (1) Fullvision, (1) User Configuration Server and (1) NM Switch
- Local Network Management Client (2)
- Network Time Synchronization (1)
- Master Site Zone Core Ethernet Switches (2)
- Redundant Core Routers (2)
- Redundant Gateway Routers (2)
- Packet Data Gateway (1)
- Gateway Service Node - GGSN Router (1)
- Network Security Interface – (1) Core Security Management Server, (1) Firewall and Intrusion Detection Sensor
- Customer Network Interface Barrier – (1) Peripheral Router, (10) Border Router and (1) DMZ Switch
- Miscellaneous Racks, Cables and Adapters

Base Site Equipment – Golden Valley Site

- 700MHz ASTRO®25 HPD Transceiver (4)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

Base Site Equipment – Medina Site

- 700MHz ASTRO®25 HPD Transceiver (3)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)

- Miscellaneous Cables and Adapters

Base Site Equipment – Health Partners Site

- 700MHz ASTRO®25 HPD Transceiver (2)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

Base Site Equipment – HCGC Site

- 700MHz ASTRO®25 HPD Transceiver (6)
- Redundant ASTRO®25 HPD Site Controllers (4)
- Site Router (2)
- Miscellaneous Cables and Adapters

Base Site Equipment – Anoka Government Center Site

- 700MHz ASTRO®25 HPD Transceiver (2)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

Base Site Equipment – Shakopee Site

- 700MHz ASTRO®25 HPD Transceiver (2)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

Base Site Equipment – Norwood Site

- 700MHz ASTRO®25 HPD Transceiver (2)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

Base Site Equipment – B108 Site

- 700MHz ASTRO®25 HPD Transceiver (2)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)

- Miscellaneous Cables and Adapters

Base Site Equipment – Forest Lake Site

- 700MHz ASTRO®25 HPD Transceiver (2)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

Base Site Equipment – North Branch Site

- 700MHz ASTRO®25 HPD Transceiver (2)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

Base Site Equipment – Kingstack Site

- 700MHz ASTRO®25 HPD Transceiver (2)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

Base Site Equipment – Empire Tower Site

- 700MHz ASTRO®25 HPD Transceiver (2)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

Base Site Equipment – Hastings Site

- 700MHz ASTRO®25 HPD Transceiver (2)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

Base Site Equipment – Ramsey County Building Site

- 700MHz ASTRO®25 HPD Transceiver (2)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

Radio Modem Package

- ASTRO®25 HPD1000 Modem with half duplex mobile antenna, external GPS receiver and GPS antenna
- Radio Service Software
- Miscellaneous cables and adapters

DETAILED SYSTEM DIAGRAM

Please refer to the end of Section B-5 of the contract for the detailed system drawings.

COMMUNICATION LINKS

A Wide Area Network backbone is required to facilitate site communication between the Master site and each ASTRO®25 HPD Base site. Routers at each site support standard Ultrawan or Flexwan modules for T1 connectivity. Motorola's demarcation point will be the Core Routers at the Master site and Site Routers at ASTRO®25 HPD Base sites.

It shall be responsibility of Hennepin County to provide operational interconnect facilities to provide connection points for Motorola installed fixed end equipment. The network backbone must meet the minimum required specifications as indicated below:

Table 1: Minimum Required T1 specifications

T1 SPECIFICATIONS	
Bit Error Rate – BER	1×10^{-6}
Stratum Level	2 or Better
Max. Delay	5 milliseconds (ms)
Availability	99.999 %
Line Coding	B8ZS (bit 8 zero substitution)
Signaling	Clear Channel
Compression	None
Framing	ESF (extended super frame)
Pulse Amplitude	0 dBdsx (3.0V +/- 0.3V or 6V P-P)
Dry or Wet	Dry, No voltage (-48 VDC or other) Present

A total of one (1) T1 or fractional T1 (minimum of 256 kbps per HSD channel per logical site) bandwidth is required from EACH of remote logical sites to interconnect

to the Master site, note HCGC has two logical remote sites co-located. Therefore, a maximum total of fifteen (15) circuits that meet the specifications above are thus required. For example, a logical HSD site equipped with four channels requires a total of 1,024kbps (4 x 256kbps) link or 16 DS0's. The site link requirements are shown in Table 2 below.

Table 2: Site link requirements

Site	Link Requirement	"To" Site
Medina	1 T1 or fractional T1 (256 kbps per HSD channel) bandwidth	Golden Valley Master Site
Golden Valley	1 T1 or fractional T1 (256 kbps per HSD channel) bandwidth	Golden Valley Master Site
Hastings	1 T1 or fractional T1 (256 kbps per HSD channel) bandwidth	Golden Valley Master Site
Empire Tower	1 T1 or fractional T1 (256 kbps per HSD channel) bandwidth	Golden Valley Master Site
Shakopee	1 T1 or fractional T1 (256 kbps per HSD channel) bandwidth	Golden Valley Master Site
Norwood	1 T1 or fractional T1 (256 kbps per HSD channel) bandwidth	Golden Valley Master Site
B108	1 T1 or fractional T1 (256 kbps per HSD channel) bandwidth	Golden Valley Master Site
Anoka Govt Cntr	1 T1 or fractional T1 (256 kbps per HSD channel) bandwidth	Golden Valley Master Site
North Branch	1 T1 or fractional T1 (256 kbps per HSD channel) bandwidth	Golden Valley Master Site
Forest Lake	1 T1 or fractional T1 (256 kbps per HSD channel) bandwidth	Golden Valley Master Site
Kingstack	1 T1 or fractional T1 (256 kbps per HSD channel) bandwidth	Golden Valley Master Site
Ramsey Co Bldg	1 T1 or fractional T1 (256 kbps per HSD channel) bandwidth	Golden Valley Master Site
Health Partners	1 T1 or fractional T1 (256 kbps per HSD channel) bandwidth	Golden Valley Master Site
HCGC	2 T1's or fractional T1's (Size each logical site link for 256 kbps per HSD channel) bandwidth	Golden Valley Master Site

ASTRO®25 HIGH PERFORMANCE DATA NETWORK EQUIPMENT

The ASTRO®25 release Transport Network is engineered to meet the performance requirements of a real time system transporting data, call control, network management, and ancillary network services.

MOTOROLA GPRS GATEWAY SERVICE NODE (GGSN) ROUTER

The Motorola GGSN router provides for the inter-networking between the Customer's Network and Motorola's ASTRO®25 HPD system allowing for independent management of IP addresses across networks. It creates secure VPN tunnels between the ASTRO®25 HPD network and external host networks.

The Motorola GGSN router also handles the IP routing services in support of End-to-End IP data messaging. These services include Static and Dynamic IP addressing, IP fragmentation and ICMP error reporting messaging useful for diagnostics and troubleshooting. It forwards mobile data terminal authentication requests to the Customer Enterprise Network (CEN).

PACKET DATA GATEWAY (PDG)

The PDG is a modular platform designed to link the wireline IP Data Network to Motorola's ASTRO®25 HPD radio frequency (RF) network. The PDG is based on a Compact PCI design providing flexibility and ease of migration to configure the gateway to meet specific system requirements. The PDG software utilizes both Linux and LynxOS operating systems combining the radio network controller functionality and gateway services supporting up to 10,000 registered data users.

The PDG software platform manages IP message traffic to and from the wireless network supporting wide area roaming. With wide area roaming, data subscribers can roam seamlessly throughout the coverage area of the ASTRO®25 HPD System without the need to select a different channel or have any specific knowledge of the RF network.

The PDG supports SNMP-based network management by providing detailed statistics and alarm information to monitor system activity and performance. These statistics and alarms allow you to monitor system operation and loading to support audit, diagnostic, and optimization activities. The information can be viewed directly via the PDG local console or through the Network Management System.

ASTRO®25 ZONE CONTROLLER

Motorola Zone Controller (MZC)

The Motorola Zone Controller is a redundant processor that provides data call processing for wide area radio communications systems. The MZC forms the heart of

a wide area data radio system by providing the central processor for the zone with the necessary hardware and software capabilities to provide call processing and mobility management.

The Motorola Zone Controller incorporates CompactPCI hardware, which provides adaptability to technology enhancements and provides for improved planning of future communication needs and migration. Additional features and benefits of the MZC include:

Intelligent Switchover

The Redundant Zone Controller Configuration provides automatic switchover to the standby controller if a loss of wide area communications is detected due to a failure internal to the active controller. Notification can be sent to the user if other components fail, allowing the user to manually switch to the standby controller if desired.

Cross Controller Compatibility

The MZC Zone Controller is capable of running two different versions of software simultaneously, thus ensuring that upgrades are fully functional with one controller before upgrading the second controller.

Compact Peripheral Component Interconnect (CompactPCI®)

The CompactPCI platform, with a Redundant Configuration, is used for the system zone controller, and is leading edge technology that allows systems to mature with the technology.

- Provides the combination of high performance, and industry standards to the embedded marketplace.
- PCI Industrial Computer's Manufactures Group (PICMG®) develops standards for PCI-based systems and boards.
- Designed for organizations targeting the goal of reducing system downtime.
- Flexibility of platform allows upgrades of software and hardware over time to accommodate future enhancements.

ETHERNET SWITCH

The Local Area Network (LAN) Ethernet Switches are used to aggregate all the Ethernet interfaces for all servers, clients, and routers. Rack mountable, stackable, 10/100 base-TX port switches comprise the LAN. The LAN switches function using standardized LAN protocols. The Core Routers, which have two network interfaces, will be physically connected to different Layer 2 ports in the LAN switch to provide redundancy. In addition, the Ethernet switch has a Network Management system to provide proactive fault management.

CORE ROUTERS

The Core Routers perform routing, control, and network management traffic to the sites within the zone.

Each router has two Ethernet ports that are connected to each of the two LAN Switches. The WAN ports on the core routers provide the WAN connectivity to the remote sites. By providing redundant core routers not all remote sites will be out of service thus providing some system availability. The Core Router uses Frame Relay to talk to the sites via the LAN Switch. The Core Router used with its Network Management system provides a proactive fault management system reporting on the health of the routers.

ZONE CORE SYNCHRONIZATION

The Zone Core includes two types of synchronization. The first type of synchronization is the LAN network to a common clock source. The other type of synchronization used at the Zone Core will be Network Time Synchronization Network Time Protocol (NTP). NTP will synchronize the clocks of all IP based devices/applications on network. The clock source for both types of synchronization will be a Stratum 1 source. The Stratum 1 source will be derived from the Global Positioning Satellite (GPS) system. For synchronization of the WAN network, the GPS receiver will contain a framed T1 output.

ASTRO®25 NETWORK MANAGEMENT SERVERS

The Network Management System can be viewed as a set of software applications or tools used to manage the ASTRO®25 Master site data radio system and its constituent components. These tools are intended to maximize the available resources and minimize system downtime and maintenance costs. Three key functional areas or services are associated with a network management framework: **F**ault Management, **C**onfiguration Management, and **S**ecurity Management. The Motorola Network Management System (NMS) offers effective and efficient solutions that address the requirements within each of these areas.

In summary, the NMS supports the following services:

Fault Management – Applications are included for monitoring the status of the transport network and the individual infrastructure components; displaying status information; forwarding alert information; and performing diagnostic procedures.

Configuration Management – Facilities are provided for entering and maintaining the operational parameters of the infrastructure components and user devices. Accounting Management– NMS supports the tracking of data radio usage of the system by providing an optional interface to third-party accounting and/or billing applications.

- Security Management – NMS includes features for setting user privileges and controlling their access to view and/or modify information contained in the configuration databases.

NETWORK SECURITY

NETWORK SECURITY INTERFACE OVERVIEW

Changes in technology and changes in customer expectations have created a critical need for network security. The adoption of IP networks as a communications backbone, combined with customer requirements for greater connectivity between the radio network and external resources, and the ubiquitous presence of viruses and web-enabled mischief, introduces the risk of massive failure of mission critical systems.

Motorola provides a suite of network security interfaces and services in order to fulfill customer needs to prevent, detect, and respond to security incidents. As pictured below, Motorola's offering consists of five major components: Network Interface Barrier, Service Interface Barrier, System Anti-Virus, Security Manager, and Security Services.

Radio Network Security Requirements

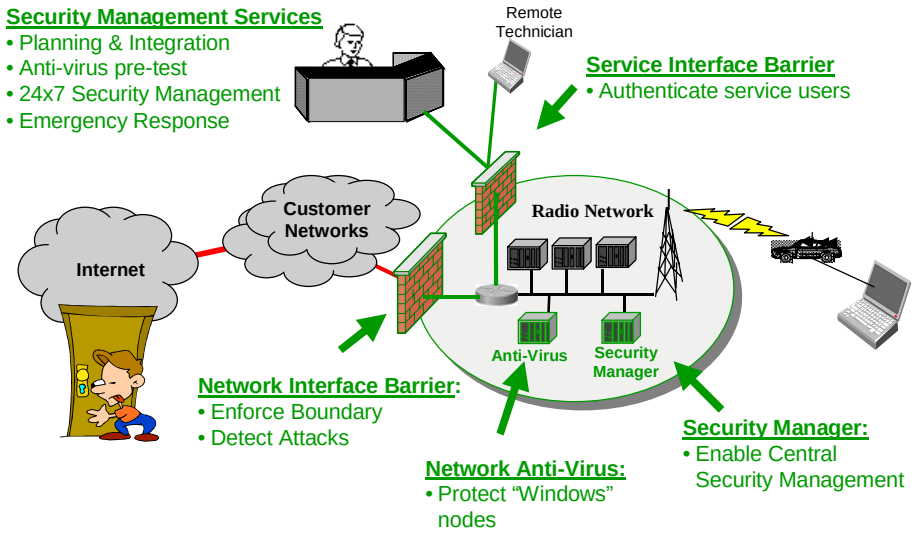


Figure 2: Network Security Overview Diagram

NETWORK INTERFACE BARRIER

The network interface barrier(s) enforce the boundary between the radio system and external networks. Motorola Network Interface Barrier is designed to safely enable use of the system's defined interfaces for integrated data, and network management.

Each Motorola network interface barrier is composed of two pieces of equipment: a ***Stateful-Inspection Firewall***, and an ***Intrusion Detection Sensor.*** The firewall ensures that only legitimate traffic is allowed to traverse between authorized points in external networks and the radio data system; it blocks un-allowed connections, restricts traffic to known applications and protocols, and ensures that radio data system resources cannot be accessed from the outside world. The intrusion detection sensor monitors allowed connections and traffic in order to detect anomalies and potential attacks; it is capable of interoperating with the firewall to block in-progress attacks. Both of these products are industry leading, commercial "off the shelf" products; however, Motorola has created a detailed configuration of these products that ensures the greatest possible security without interfering with radio system activities and performance.

SERVICE INTERFACE BARRIER

The service interface barrier ensures that only authorized individuals are allowed to remotely access the radio data system. It is required in every system design in order to

safely enable use of the system's interfaces for remote service access, remote network management, and Motorola's System Support Center and Network Monitoring facilities.

The service interface barrier consists of an ***Authentication Server*** working in conjunction with the system's dial-up terminal servers and fixed-link service routers. The authentication server maintains individual user accounts and passwords for each authorized remote user. It will also support a future option to utilize RSA Secure ID tokens in the authentication process. The authentication server will terminate any attempted connection if the remote user does not present proper credentials. It can also verify that computers used by remote personnel meet qualifying criteria, such as status of anti-virus software. The authentication server is an industry leading, commercial software application. One authentication server is required in each system. It will reside on the same computer platform as the system's anti-virus server, described below.

NETWORK ANTI-VIRUS

The radio network contains anti-virus protections for its Windows based elements. Anti-virus protections are required in every system design, and provide a means to prevent, detect, and respond to virus attacks.

The system's anti-virus elements include ***Anti-Virus Scanning Clients*** and the ***Anti-Virus Server***. Motorola installs an anti-virus scanning client on each network management Windows based computer workstation and servers. The anti-virus server manages the configuration of each client, receives and reports events and alarms, and distributes anti-virus definition updates to each client. Both elements are industry leading, commercial software applications, and will be configured by Motorola for specific use in radio systems. One anti-virus server is required in each system; it will reside on a server-class Window's computer at the master site.

SECURITY MANAGEMENT USER INTERFACE

One or more security management user interface positions must be included in the system design in order to provide the system operator with means to control and manage each of the system's security enforcing elements. Each security element (Firewall, Intrusion Detection Sensor, Authentication Server, Anti-Virus Server, and Consolidated Security Manager) included in the system has a user interface software application that can be accessed from a Network Management terminal; Motorola will aggregate these interfaces onto each Network Management terminal that is designated as a security management user interface position. Note that these security management applications are all accessible from the Network Management terminal, but they are not integrated into existing network management applications.

ASTRO®25 NETWORK MANAGEMENT

The ASTRO®25 Network Management system is comprised of three major subsystems. Each of these subsystems supports certain specific functions, or management applications. These three subsystems are:

- User Configuration Subsystem (UCS)
- ASTRO®25 Zone Manager (OZM)
- FullVision Integrated Network Manager (INM)

All three network management subsystems reside on the ASTRO®25 Zone Controller/Zone Manager Local Area Network (LAN). Access to ASTRO®25 Network Management applications is through Network Management Terminals.

ASTRO®25 NETWORK MANAGEMENT OVERVIEW

The basic ASTRO®25 Network Manager functions are divided into the three major Network Management categories. These are:

- Configuration Management
- Fault Management
- Security Management

The user interface of the ASTRO®25 Network Manager includes menus to select objects and screens to enter data. The screens have a message area and help screens to inform and instruct the user on the entry of information and the use of the ASTRO®25 Network Manager. A Graphical User Interface (GUI) for the ASTRO®25 Network Manager allows for a multiple window, mouse-driven application that contains a pictorial representation of the zone level equipment. Each managed system component (i.e. Site, Controller, etc.) is represented by a pictorial icon that allows the user to access the current status of the component via a pull-down menu. Fault indications (Alerts and Alarms) on classes of components (i.e. repeaters, site controllers, etc.) can also be displayed. The user entry for the configuration of system components and subscriber information is simplified with the GUI. In general, the GUI provides a more visually intuitive interface.

Configuration Management

Configuration Management pertains to the ability to specify the operational parameters of logical and physical devices used within a system. It involves establishing each component of the system, its relationship to other components and the associated parameters of the component. Examples of such devices include sites, talkgroups, repeaters, site controllers, radio profiles, and radio user profiles. The

ASTRO®25 Network Manager includes a single point of entry for configuring most all infrastructure devices in the system.

The FullVision INM allows for the configuration of the IP network devices utilized in the system, such as access to the Transcend application used to configure router devices.

Fault Management

Fault management pertains to the capability to: monitor the status and status history of a zone and its objects; display fault information for a zone and its objects; and, when applicable, perform diagnostics upon the objects in that zone. It provides a picture of the status of objects in an ASTRO®25 system. Fault Management for the OZM can be divided into six categories:

- Current Alarms/Alerts from a zone
- Zone Health/IZ Relationships from that zone's point of view
- Technician Messages from a zone
- Diagnostics for a zone
- System Capabilities of objects in the zone
- Alert Notes for objects in the zone.

In a large network it is also valuable to have a single integrated view of the overall system, especially with respect to Fault Management. The FullVision Integrated Network Manager provides fault information including a centralized view of the fault condition of an entire system via sub-system topology maps as well as auto-discovery of managed devices and third party equipment. It also provides fault reporting from Motorola Proprietary devices via Proxy, and third party Simple Network Management Protocol (SNMP) based agents.

Security Management

When many different agencies share a communication system, control of their radios and their user's capabilities is of utmost concern. The System Manager can segment (or partition) access to information in the centralized database according to different user organizations or user categories.

These categories include:

- By department
- By agency
- By geography
- By manager user type (e.g.; technician versus service manager)

- By application
- By function within an application (e.g., read-only versus write privileges).

Within the system, every configurable item, such as radios and talkgroups, will be assigned to a Security Group. The configuration items can be assigned to different Security Groups in order to give control over these items to different Zone Manager and UCS users. Each Zone Manager and UCS user is given access to information based on the Security Groups in the system to which he/she has been assigned.

Manager users may only access information on subscriber and infrastructure objects that are in Security Groups to which they have been granted access.

ASTRO®25 HPD SYSTEM OVERVIEW

Key features of ASTRO®25 HPD are described in the following sections.

SYSTEM PERFORMANCE

This IP based system operates at data speeds of 32 to 96 kbps depending on the signal strength, bit error rate and system load. Channel data rate is the maximum data rate that can be transmitted over a radio channel given a specific bandwidth. In this case the channel bandwidth is 25 kHz. The Channel data rate can be thought of as an overall figure that takes into account all of the data components that are to be transmitted across the radio link.

OFDM ADVANTAGE

The HPD offering incorporates the use of a land mobile radio specific variant of Orthogonal Frequency Division Multiplexing (OFDM) as a critical performance enhancing technology. As the symbol rate for a given channel bandwidth increases, the performance degradation due to multipath delay spread also increases. In the mobile environment, the transmitted signals take many different paths before arriving at a receiver. These paths include reflections off of buildings, cars, mountains, and many other objects. This is referred to as multi-path. Because multiple reflections of the transmitted signal arrive at the receiver at different times, this results in intersymbol interference (or bits "crashing" into one another) which the receiver many times cannot sort out. As the symbol rate increases, multipath interference becomes a greater concern and results in significant coverage loss if not effectively mitigated. OFDM is a well-known technique for combating multipath that has only recently become practical for commercial applications.

OFDM has recently provided significant performance improvements in the wireless LAN market for the 802.11a as opposed to the single carrier direct sequence CDMA physical layer of the 802.11b standard. OFDM can provide the same benefits to wide-area land mobile radio networks as it does for the local area networks. The basic idea of OFDM is to divide the available channel (25 kHz in this case of HPD) into many

subchannels. Rather than transmit data using a single frequency carrier, each subchannel has a subcarrier that transmits a significantly lower symbol rate signal. In essence, the transmitted signal is a collection of many lower rate signals that when combined together in the receiver result in a high data rate. Using this OFDM method, the multipath effect is mitigated through the transmission of the slower symbol rates on the subcarriers.

In addition to the multipath advantage, OFDM is also very spectrally efficient. The subcarriers have a precisely chosen frequency spacing and are close packed. HPD also supports adaptive modulation and coding (AMC) with 64QAM, (6 bit per symbol), 16QAM (4 bits per symbol), and QPSK (2 bit per symbol) like 802.11. HPD is also a coherent modulation that utilizes pilot symbols that permit the receiver to track channel conditions and results in better sensitivity than older non-coherent methods. This results in very high spectral efficiency by dynamically tracking and adapting to current channel conditions.

In short, OFDM is a robust and efficient method for providing non line of sight wireless access in the HPD system. The straightforward way it combats multipath, the high spectral efficiency it provides, and the multiple access efficiency it enables are well suited for providing higher data rates to multiple users without significant coverage penalties.

MODULATION ADVANTAGE

There is a fundamental trade-off in communication systems. Simple hardware can be used in transmitters and receivers to communicate information. To increase the bit rate while continuing to use the simpler hardware, more spectrum is required. Alternatively, more complex transmitters and receivers can be used to transmit higher bit rates over the same bandwidth. The transition to more and more spectrally efficient transmission techniques requires more complex hardware and is the market trend considering the limited spectrum available today.

In the past, traditional wireless data networks used Frequency Shift Keying (FSK) modulation, which is very simple to implement. As an example, Motorola's RD-LAP protocol used a 4-Level FSK modulation to achieve a bit rate of 19.2 kbps in a 25 kHz channel. To achieve higher rates than 19.2 kbps, higher order FSK modulations are required such as 8-FSK, or 16-FSK. The problem with FSK is that the modulation decreases in bandwidth efficiency as the modulation order is increased. With this in mind, HPD was designed using a multilevel Quadrature Amplitude Modulation (QAM) method that achieves a high bit rate using limited bandwidth. More specifically, HPD automatically adapts between 3 modulation levels: QPSK (4-QAM), 16-QAM, and 64-QAM.

The use of adaptive modulation allows a wireless system to choose the highest order modulation depending on the channel conditions. As the range increases or the channel conditions become more challenging, the modulation automatically adapts

down to lower order modulations, such as QPSK or 16-QAM, to maintain coverage. However, in good signal conditions the higher order modulations, like 16-QAM or 64-QAM, will be used for increased throughput. With this use of adaptive modulation, the system is enabled to better overcome fading and other interference.

Further worth noting, both QAM and QPSK modulation techniques are used by IEEE 802.11 (Wi-Fi*), IEEE 802.16 (WiMAX*) and 3G (WCDMA/HSDPA) wireless technologies. The use of adaptive modulation allows wireless technologies to optimize throughput, yielding higher throughputs while also covering long distances. The HPD technology is designed to also achieve these critical goals.

QUADRATURE AMPLITUDE MODULATION

Motorola is adopting the use of Quadrature Amplitude Modulation (QAM) into private data systems to increase the amount of data that can be sent over a 25 kHz channel. Multiple levels of QAM allow Motorola to achieve data rates as high as 96 kbps in a 25 kHz channel.

The QAM modulation technique divides the main radio channel carrier into sub-carriers each carrying part of the data message. ASTRO 25 HPD provides three modulation types, 4-level QPSK, QAM-16 and QAM-64. The over-the-air data rate is lowest using 4-level QPSK, and increases progressively to QAM-64, the fastest modulation type.

This application of QAM technology has the ability to measure the noise level on the radio channel and dynamically scale the data rate using the three modulation types. QAM-64 yields the highest data rate and is used when signal levels are strong and noise levels are low. 4-level QPSK is used at times when noise levels are higher.

RELIABLE MESSAGING

Confirmed delivery services, buffered messaging, error reporting and data channel management are included as part of the data services promoting channel efficiency along with a high level of reliability for messages transmitted across the system. Confirmed delivery services supports retransmission of messages that are not acknowledged or are received incomplete along with detection and deletion of duplicate messages. Both inbound and outbound data messages are buffered. Message delivery efficiency means faster response times for the users in the system. The ASTRO®25 HPD system manages the loading of available channels at each site within the system allows for better optimization and utilization of the network. ASTRO®25 HPD incorporates advanced features that allow maximum system performance such as:

- **Forward Error Correction** dramatically increases the packet success rate of data messages when transmitted over a radio network. Wireless links contain noise and interference not encountered by wireline links. Forward Error Correction works

by repeating a small number of data bits in each transmission. The receiving RF modem uses these Forward Error Correction bits to reconstruct portions of the data transmission that may have been lost due to interference on the radio link.

- **Data Stream Interleaving** prevents radio noise and fades from introducing errors in to the data stream. It does this by reducing the chance of having multiple sequential errors in a data packet and increases tolerable fade duration. Bits in the data stream are shuffled so that adjacent bits are separated.

- **Channel Access Technique** results in increased channel efficiency on the inbound channel. It addresses contention by reserving inbound slots using slotted Aloha. This methodology provides almost double the efficiency of previous methods such as S-DSMA.

- **Retry Methodology** addresses retries and delivery timeouts due to interference or fading by including an inherent number of automated retries that appear transparent to the user and a timeout timer.

- **IP addressing and Control Overhead** bits manage the communication between devices connected together by the mobile data network. Motorola's ASTRO®25 HPD system uses IP "Internet Protocol" addressing. Internet Protocol allows Hennepin County to extend IP applications out to computing terminals in vehicles.

- **Physical Layer Keying and Synchronization Overhead** bits control how individual RF modems transmit on the radio channel. Each radio channel in the Hennepin County system must be shared by all the RF modems active on the system. All of the RF modems cannot be transmitting at the same time. Physical Layer Keying and Synchronization Overhead bits act as a traffic cop directing when RF modems should transmit and when they should receive.

- **Authentication** includes Windows level authentication and Encryption (AES, Twofish, Triple-DES, or DES) which is supported at the application level. It allows secure communication between the end user applications and the Fixed End host applications.

FREQUENCY AGILITY

ASTRO®25 HPD RF Modems are frequency agile and can operate on 700 MHz channels and 800 MHz channels. The High Performance RF modems roam seamlessly between 700 and 800 MHz frequency bands.

IP SERVICES

The ASTRO®25 HPD network uses industry standard Internet Protocol (IP) routing. The use of Internet Protocol (IP) suite complies with the user-driven Project 25

standards for integrated voice and data systems. The connection between customer networks and the ASTRO®25 HPD network is IP over Ethernet. The end-to-end IP network transports user data and control information between LAN-based computers and wireless computers in the field. Both USB and Ethernet connections are available with Motorola radio modems allowing user terminal computers to access the network through a PPP interface. An IP standard architecture provides easier integration of wireline and wireless systems by allowing applications to be written to an industry standard interface. Included in these IP services are IP routing, IP messaging, fragmentation, individual messaging, Dynamic and Static addressing and IP address isolation between customer networks and the ASTRO®25 HPD Radio system network. Address isolation between networks allows IP address space to be allocated independently in each connected network.

STANDARDS-BASED NETWORK MANAGEMENT

Network management services provide detailed statistics and alarm information allowing the monitoring of system operation to support audit, diagnostic, and optimization activities using Simple Network Management Protocol (SNMP) -based standard. The Network Management System with a standard suite of application software serves as a platform to provide both fault and configuration management of data components within the High Performance system.

NETWORK SECURITY

The ASTRO®25 HPD system allows user credentials to be sent from the data device to the customer network. Access to the system will be granted only to users based on validity of the credentials. The validity of the credentials will be determined by the customer. The system also protects the credentials from a simple over-the-air monitor and replay attacks and supports the exchange of credentials needed for user authentication initiated by an application host within the Customer Enterprise Network (CEN). Protection from accidental virus infection of the network by service personnel and virus propagation and into the network via customer network interfaces is also provided by the ASTRO®25 HPD network.

THE HPD COVERAGE ADVANTAGE

To maximize potential coverage, HPD technology implements several key features:

- **OFDM:** Sub-carriers with reduced symbol rates enhance robustness in the RF environment.

- **Variable rate modulation:** HPD offers data rates up to 96,000 bits per second (bps). HPD has the ability to automatically adapt to lower rates of 64,000 and 32,000 bps as required to insure that coverage is extended into weaker signal areas.

- **Diversity receive capability:** The standard HPD configuration supports two receive paths on each base station to mitigate fading effects that are common to RF environments. With this approach, two receive antennas are used to capture signals from two spatially different locations on the same tower at a given base site. If one antenna experiences a deep fade but the other captures signal with reasonable quality, the received signal can still be successfully decoded. In a single antenna environment the only alternative for recovery from a deep fade is a retransmission of the message which degrades throughput.

- **Efficient retry method:** HPD offers a retry method that retransmits only the portions of a message that have errors. It is a known fact that larger messages have a lower probability of being successfully received in comparison to shorter messages. Using this approach, the retried message will be smaller which offers a higher probability of being received and ultimately results in improved coverage and throughput.

THE HPD THROUGHPUT ADVANTAGE

To maximize throughput, some of the key features offered by HPD include:

- **Fastest over-the-air rate:** HPD offers a maximum data rate of 96,000 bits per second, the fastest rate commercially available in 25 kHz channel bandwidths and a rate that only Motorola has been able to achieve to date. Even at the lower rates of 64,000 and 32,000 bits per second, HPD offers significant speed advantages over competitive offerings.

- **Variable rate FEC:** HPD includes a methodology for controlling the amount of overhead used for forward error correction (FEC). For the strongest error correcting capability in weaker signal areas or for critical portions of the data stream, HPD will encode messages at a 50% (1/2 rate) FEC overhead rate. In cases where less FEC strength is required, encoded messages will have 33% (1/3 rate) FEC overhead. With less FEC overhead, user data throughput is increased; however, if more FEC strength is required to deliver a message, HPD is able to make the adjustment to prevent further retries of a message, which also conserves channel capacity.

- **Advanced multi-access:** HPD provides an extremely efficient method for supporting multiple users on a single channel. The HPD approach uses a reservation method to prevent users from transmitting messages simultaneously which result in failed transmissions and, ultimately, wasted channel capacity.

- **Efficient retry method:** HPD's approach to retries also enhances throughput capability. Retried messages are smaller and contain only the portions of the original message that fail, then the channel resources are not burdened with repeat data that has been successfully received. In this regard, more of the channel is freed up to support other data and ultimately the channel capacity is improved.

MOBILE ROUTER (OPTIONAL)

Motorola Mobile Router is a software package that provides several essential benefits to a wireless network. Because it operates on the Transport Driver Interface, it is transparent to any Mobile or fixed end Host applications and is independent of the over-the-air protocols used. It provides robust security features such as Windows level Authentication, Encryption (AES, Twofish, Triple-DES, and DES), Common Internet File System (CIFS), Diffie-Hellman key exchange, Internet Protocol Security (IPSec) and Public Key Infrastructure.

Motorola Mobile Router is designed to provide optimum performance over wireless communication links, which generally face intermittent and bandwidth-challenges. Its architecture allows network traffic over IP to deal with momentary loss of connectivity from a MDT whether due to coverage outages or user intervention, called session persistence. It reduces the chattiness of transport protocols like TCP/IP over-the-air and makes efficient use of bandwidth. The techniques used to provide link optimization include: selective acknowledgements, data and acknowledgement bundling, message coalescing, reduced and synchronized retransmissions, fragmentation optimizations, data compression of application payload and error-reduction algorithms.

The Mobile Router offers the capability to roam between various data layer solutions (i.e. HPD, HSD, and 2.4/4.9 GHz MESH).

ASTRO 25 HPD BASE STATION

The GTR8000 ASTRO®25 HPD Base Station provides the vital connection between landline and radio frequency. It is designed to support higher data speeds and reliable data communications in both 800 and 700 MHz frequency bands. It provides maximum flexibility in a compact design supporting up to 5 base radios in one single cabinet. Components include support for 1 - 5 base radios, Multicoupler, Combiner, Isolator and Cabling in a single cabinet. This equipment will provide transmit and diversity receive capabilities.

ASTRO®25 HIGH PERFORMANCE DATA SITE CONTROLLER

The GCP8000 ASTRO®25 HPD Site Controllers operate in redundant mode and are designed for use in ASTRO®25 HPD Systems providing data call processing for individual ASTRO®25 HPD sites. It supports up to 5 ASTRO®25 HPD channels per ASTRO®25 HPD site.

ASTRO®25 HPD MOBILE RADIO MODEM

The ASTRO®25 HPD1000 mobile radio modem is designed to support ASTRO®25 HPD speeds ranging from 32 kbps to 96 kbps within the 800/700 MHz frequency bands. It provides connectivity between the data device and the customer's host network through the ASTRO®25 HPD network. It is a 25 kHz, 10 watt radio modem with an optional integrated GPS receiver that provides connectivity to Motorola Mobile Data Terminals (MDT) via a PPP interface over either USB or Ethernet connection. The ASTRO®25 HPD1000 mobile radio modem is configurable for either half duplex or full duplex with dual mobile antennas.

ASTRO®25 HPD1000 mobile radio modems users maintain continuous access to data service while roaming seamlessly throughout the coverage area maintaining reliable communications. User roaming is transparent to the application and requires no user intervention (radio mode changes or mobile computer configuration). Should a subscriber roam during a data transaction, the system will make a best effort to complete the transaction at the new site.

GPS RECEIVER

The Trimble Placer 450 GPS receivers integrate GPS and protocol support onto a single board enclosed in a low profile and ruggedized housing. The compact Placer 450 GPS unit includes two serial ports for connection to the mobile computer.

It supports TAIP, TSIP, RTCM SC-104, NMEA 0183 message formats and MAP27, CDPD, APCO25 and transparent communications protocols.

SYSTEM SPARES

Motorola includes a complete list of optional spare parts available in the pricing section of this contract. It is recommended the customer have a complete set of spares at time of beneficial use.

SITE FREQUENCY COMPATIBILITY AND LICENSING

It is the understanding that Hennepin County will provide properly licensed frequencies for use with all proposed equipment for all sites. In the event that a frequency incompatibility should arise at any site, a change order will be required. This proposed ASTRO®25 HPD system design is based on utilizing frequencies with a minimal frequency separation of 250k Hz.

CUTOVER PLAN

A Cutover Plan will be constructed and agreed upon between Motorola and Hennepin County. Motorola will work with Hennepin County to minimize the effects of any system down time.

MIGRATION PATH TO WIDEBAND

ASTRO®25 HPD offers a flexible approach for customers to expand to higher speed data services and incorporate future needs for wideband data (Up to 50 kHz at 700MHz). Motorola is able to leverage the phase one HPD system investment by migrating the HPD channels to 50kHz channels.

MIGRATING THE PROPOSED HPD SYSTEM FOR HENNEPIN COUNTY

The ASTRO®25 HPD system solution provides one integrated infrastructure that supports multiple levels of data functionality. No other system can claim the level of integration incorporated into our evolving architecture. By implementing ASTRO®25 HPD the network can grow, providing public safety agencies a unified infrastructure from which they can best serve the citizens of the nine county metropolitan area. Motorola's evolving architecture maintains the highest integrity of the system by phasing in the latest developments in radio communications. The incorporation of higher speed data solutions will update the technology and extend the lifespan of the network, provide additional redundancy and reliability for the users, and launch a mobile data infrastructure that brings a host of new benefits by transporting more critical information wirelessly to the field.

The ASTRO®25 HPD offering is the first phase of a multi-tiered data system approach. The proposed migration of this system with 700MHz High Speed Data (HSD) will open up the network to increasingly sophisticated data services for Hennepin County users. For example, whereas HPD typically supports basic text-

based inquiries, AVL/GPS, high-resolution graphics, the addition of 700MHz HSD (wide band – 50kHz channels at speeds up to 230kbps) into the system will allow for not only more capacity but more data intensive applications. Motorola understands the desire for Hennepin County's dynamic data needs. This contract includes an upgrade of the HPD fifteen site system to 700MHz HSD (wide band - 50kHz). The contracted system includes the software upgrade of the Master Site at Golden Valley and twelve Regional ASTRO®25 High Performance Data (HPD) Sites at the Medina, Norwood, Shakopee, Empire Tower, Hastings, Ramsey County Building, B108, Anoka Government Center, North Branch, Kingstack, Forest Lake, and Hennepin County Government Center (HCGC). The existing one (1) HPD channel at all the Regional sites will be upgraded to HSD (wide band – 50kHz), for a total of twelve (12) HSD channels. Based on the load profile, less the video component, the Hennepin County data solution will consist of five sites, all of the HPD channels for Hennepin County will be upgraded to HSD (wideband – 50kHz). For Hennepin County, the Medina site will include two (2) HSD channels, the Golden Valley site will include four (4) HSD channels, Anoka County Government Center site will include one (1) HSD channel, the Health Partners will include two (2) HSD channels, the HCGC site will include five (5) HSD channels, and the Health Partners site will include two (2) HSD channels, for a total of fourteen (14) HSD channels. In order to achieve the specified load model for web browsing at 50 kHz, there is a need for fourteen (14) channels of HSD distributed across the five Hennepin County sites. Motorola's HSD-50 High-speed Data Solution is currently under development. This schedule is flexible based on the contract execution date and will move up or back accordingly. As noted in the pricing section of our contract, Motorola will commit contractually to firm pricing. This migration process allows Hennepin County to minimize costs of having two data layers active simultaneously.

Most importantly, this progression from ASTRO®25 HPD to HSD keeps Hennepin County on track to deploy future system enhancements as they become available. Advancements in technology have already added such applications as Automatic Vehicle Location, imaging (mug shots and fingerprints) and report writing for use on wide-area mobile data systems; therefore, it is imperative that Hennepin County have a path to increasingly robust wireless data speeds.

TIA-902 DIGITAL RADIO TECHNICAL STANDARDS

The High Speed Data system is designed based on the TIA-902 digital radio technical standards as defined by the TIA TR-8.5 Subcommittee on Signaling and Data Transmission. The applicable standards specifications are listed below.

Document Name	Document Number	Date
Scaleable Adaptive Modulation (SAM) Physical Layer Specification (Modulation)	TIA-902.BAAB-A	September, 2003
Scaleable Adaptive Modulation (SAM) Channel Coding Specification (Turbo Coding)	TIA-902.BAAD-A	September, 2003
Media Access Control / Radio Link Adaptation	TIA-902.BAAC	September, 2002
Logical Link Control Layer Specification	TIA-902.BAAE	September, 2002
Packet Data Specification (PDS)	TIA-902.BAEB	May, 2003
Mobility Management Specification (MMS)	TIA-902.BAAF	May, 2003
Wideband Data Methods of Measurement	TIA-902.CAAA	February, 2003
SAM Performance Recommendations	TIA-902.CAAB	January, 2003

WIDE AREA RADIO COVERAGE

The predicted coverage maps of the ASTRO®25 HPD and HSD solution for Hennepin County are provided in the Acceptance Test Plan section (B-6) of this contract document.

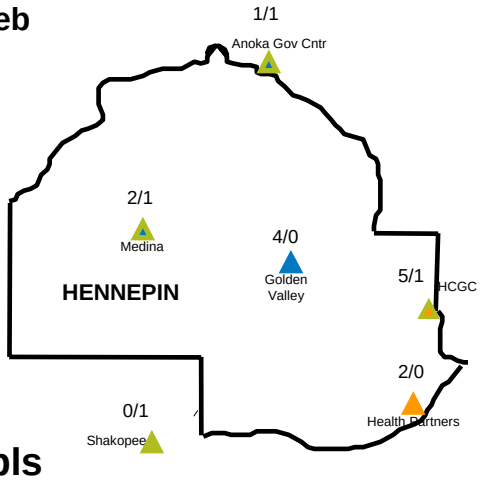
STANDARDS

When operating in the 700 MHz frequency band, the ASTRO®25 HPD modem supports interoperability for basic data IP bearer services in compliance with the Project 25 interoperability modes as defined in the FCC standards. These modes for the data interoperability channel include radio-to- radio, radio to Repeater Radio and Radio to Fixed Network Equipment (FNE). This is user selectable by manually switching from ASTRO®25 HPD channels to the data interoperability channel.

Design – HPD Loading

HPD 25 – Load Profile w/o Video, Half Web

- **35 Users Per Channel**
- **14 Hennepin Channels**
  - 490 Data Users
- **4 Regional Channels ( )**

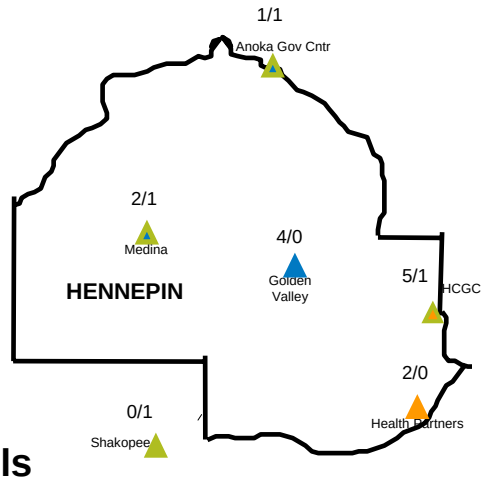


West Henn	East Henn / Mpls
• 7 Channels • 245 Total Data Users	• 7 Channels • 245 Total Data Users

Design – HSD Loading

HSD 50 – Load Profile without Video

- **40 Users Per Channel**
- **14 Hennepin Channels**
  - 560 Data Users
- **4 Regional Channels ( )**



West Henn	East Henn / Mpls
• 7 Channels • 280 Total Data Users	• 7 Channels • 280 Total Data Users

Average Peak-Hour Message Load Profile modeled for HSD-50

TRANSACTION	Qty of Messages	Uplink Characters per Message (in Bytes)	Total Uplink Payload (in Bytes)	Downlink Characters per Message (in Bytes)	Total Downlink Payload (in Bytes)
DISPATCHING					
Event Incident	4	50	200	150	450
STATUS REPORTING					
Enroute	2	50	100		
At Scene	2	50	100		
Clear	2	50	100		
Other	2	50	100		
QUERIES					
CAD	8	100	800	150	1200
RMS	1	100	100	1000	1000
Other Local Database	1	100	100	1,000	1,000
MINCIS/NCIC	10	150	1,500	300	3,000
MESSAGING					
Car-to-Car/Car-to-Disp	8	150	1,200	150	1,200
E-Mail	2	150	300	150	300
E-Mail w/Attachment	1	25,000	25,000	25,000	25,000
REPORTING					
Field Report Submitted	1	3,000	3,000		
Fld Report to Supv	1			3,000	3,000
Fld Report to Officer	1	3,000	3,000	3,000	3,000
Fld Report Resubmitted	1	3,000	3,000		
AVL					
Location Update	60	60	3,600		
AFIS					
Fingerprint Scan	1	3,000	3,000		
Response w/Photo Image	1			3,000	3,000
VIDEO					
Mugshot Request	1	150	150		
Mugshot Image	1			3,000	3,000
INTRANET/INTERNET					
Limited Browsing	10	150	1,500	20,000	200,000
TOTAL (Bytes/Peak Hr)			**46,850**		**245,150**

Average Peak-Hour Message Load Profile modeled for HPD-25

TRANSACTION	Qty of Messages	Uplink Characters per Message (in Bytes)	Total Uplink Payload (in Bytes)	Downlink Characters per Message (in Bytes)	Total Downlink Payload (in Bytes)
DISPATCHING					
Event Incident	4	50	200	150	450
STATUS REPORTING					
Enroute	2	50	100		
At Scene	2	50	100		
Clear	2	50	100		
Other	2	50	100		
QUERIES					
CAD	8	100	800	150	1200
RMS	1	100	100	1000	1000
Other Local Database	1	100	100	1,000	1,000
MINCIS/NCIC	10	150	1,500	300	3,000
MESSAGING					
Car-to-Car/Car-to-Disp	8	150	1,200	150	1,200
E-Mail	2	150	300	150	300
E-Mail w/Attachment	1	25,000	25,000	25,000	25,000
REPORTING					
Field Report Submitted	1	3,000	3,000		
Fld Report to Supv	1			3,000	3,000
Fld Report to Officer	1	3,000	3,000	3,000	3,000
Fld Report Resubmitted	1	3,000	3,000		
AVL					
Location Update	60	60	3,600		
AFIS					
Fingerprint Scan	1	3,000	3,000		
Response w/Photo Image	1			3,000	3,000
VIDEO					
Mugshot Request	1	150	150		
Mugshot Image	1			3,000	3,000
INTRANET/INTERNET					
Limited Browsing	5	150	750	20,000	100,000
TOTAL (Bytes/Peak Hr)			**46,100**		**145,150**

SECTION 6 EXHIBIT B-8

DATA LAYER

STATEMENT OF WORK

TABLE OF CONTENTS

1. PRELIMINARY STATEMENT OF WORK

1.1 STATEMENT OF WORK

This preliminary Statement of Work (S.O.W.) defines the responsibilities of the parties involved in the construction of the standalone 7.1, 14 site High Performance Data solution. Motorola is providing an interim HPD 25 solution with migration to HSD 50. The S.O.W. is a narrative description of the work and the resources to be supplied by all parties. It contains a summary level of project deliverables as to the output, approach, content to deliver and install the Hennepin County High Performance Data system as described in the Motorola System Descriptions submitted with this document, as part of our proposal.

It is the intent of Motorola that this document represents the most current understanding of the system design, operation, and architecture as presented to Motorola. Changes to this document will be made by formal request by either party and approved by the other. Changes requested after contract execution shall be accomplished via the Change Order procedure defined in this document. It is Motorola's expressed intent that the scope of this offering, and its associated subsystem designs, be governed by the quantities of items provided in the equipment list which constitutes the limits of the equipment and services associated with this offering.

It is in Hennepin County's best interests that tasks to be performed by Motorola, representatives of Motorola, and Hennepin County are clearly defined. Details of the Statement of Work may be added or amended through the Change Order process, after the Contract is executed.

1.2 DETAILED DESIGN REVIEW (DDR)

Motorola's engineering and project management team have reviewed the information furnished by the Hennepin County and have provided an equipment list and subsystem descriptions in our proposal. The SOW contains an implementation plan that addresses the tasks within Motorola's control. Several key tasks and developments will occur simultaneously and this requires proactive project management and constant communications with the Hennepin County and our subcontractors. The Motorola project team combines the necessary resources to expertly manage this project.

Installation Acceptance and Final Acceptance criteria are described in the S.O.W. Successful completion of all project phases will lead to Final Acceptance.

1.3 MOTOROLA SUPPORT STAFF

Over the last two decades, radio systems have become more complex and sophisticated. Radio systems are no longer only voice communication systems, but also provide a medium for information of all types, covering a wide variety of new and emerging applications. As system complexity increases, design, installation, and integration become more critical to the successful completion of the total system. A specialized set of skills is required to perform these tasks. Recognizing these changing requirements, Motorola has organized their resources into a single Systems Integration (SI) group to meet these needs. This organization is involved from system conception to system completion. Ancillary functions support the development of a system design and implementation. The Motorola Systems Integration organization is a dynamic team assembled for each project to fulfill the customer's specific requirements. The Motorola System Integration organization and the Hennepin County team members will form a cohesive group to address Hennepin County's High Performance Data needs to arrive at the optimum High Performance Data solution. Each member of the SI organization stays abreast of the latest methods and techniques in their discipline. Motorola's comprehensive training programs ensure up to date information and skills. Motorola Systems Integration personnel average between 40 to 100 hours of training each year.

The System Integration team provides a variety of technical services that are divided into these major disciplines:

1.3.1 PROJECT MANAGEMENT

The Project Manager has full responsibility for the successful completion of the project and will be the focal point for all communications between Hennepin County and Motorola during the system implementation phase, which allows for a smooth and timely installation. The Project Manager will be responsible for the total project in accordance with the contractual schedule requirements and the technical and financial objectives of the contract. He/she will be directly responsible for reviewing and controlling the project schedule, equipment orders and deliveries, subcontracts, installation, system testing and optimization, documentation, training and all duties required to coordinate the work of various team members to ensure a completely operational system. All field installation and implementation teams will be closely managed to ensure all on-site installation, integration and optimization tasks are performed within contract requirements.

The Project Manager will ensure the equipment purchased from subcontractors meets or exceeds the specifications established by the manufacturer. A comprehensive inventory of all received equipment will be completed to ensure total delivery. Further, an inspection of the physical condition of all hardware will be performed to ensure no damage occurred during shipment. Before the equipment is installed, all sites will be inspected to ensure that all site preparation is complete. The delivered

equipment will be installed, optimized, and tested to ensure compliance with the contractual requirements. The Project Manager supports the actual hardware implementation with proper documentation, guidance and training. Ensuring quality workmanship by all Motorola vendors and subcontractors for provided equipment and services is a primary responsibility of the Project Manager. To aid the Project Manager and increase the effectiveness of his/her role, Hennepin County is a vital source in the implementation of the High Performance Data system. Motorola will rely on Hennepin County to perform its functions as outlined in the agreed upon schedule in a manner that ensures the timely completion of the project.

In addition, the Project Manager is accountable for managing contractual requirements including change orders. Contractual requirements will be ensured by the careful development of contract documents for the Statement of Work and contract supporting documents for both the Hennepin County System and all subcontractors. The development of the Motorola project team installation and implementation plan is a primary responsibility and ties directly to the project schedule for contract adherence. As milestones noted on the project schedule are completed, the Project Manager will obtain Hennepin County's concurrence and acceptance.

It is of critical importance that Hennepin County and Motorola work as a team in order to ensure a successful implementation of the proposed project. It is Motorola's experience that the probability for a successful implementation is greatly increased when the customer designates a "Project Manager" to represent their interests and act as a single point of contact. This individual will be considered part of the project management implementation team and play a vital role in the total implementation process.

Project Management is an ongoing activity required by both parties for the successful completion of the proposed project. Both Motorola and Hennepin County shall designate a Project Manager who shall have the responsibility for, but not limited to, contract administration, scheduling of project tasks, and monitoring the progress of the assigned deliverables. They shall serve as a single point of contact for their respective project team personnel and subcontractors. They are the only persons who may direct a change to the SOW via the Change Order process.

A team of specialists will be assigned to the project. Team members work closely with the Project Manager for guidance and direction regarding the implementation of the project.

Motorola has a large staff of experienced system engineers, field technical representatives, product and systems consultants, and radio technicians. For the duration of the installation and acceptance period, the Project Manager will utilize these resources as well as the resources of Motorola's product organizations to design,

build, install, optimize, and test the proposed system as described in the System Description.

1.3.2 PROJECT ENGINEER

The Project Engineer has full responsibility for system design and performance and is the technical "voice" of Motorola. The engineer's primary responsibility is to ensure the technical integrity of the High Performance Data system design. To accomplish this, the engineer will work closely with the Hennepin County team to define its needs, design the preliminary system and participate with the Motorola and the Hennepin County teams in the Detailed Design Review to finalize and confirm the system design. The engineer will complete the process of defining, documenting and acquiring the Hennepin County's approval of system programming and configuration.

The engineer will participate in the system and functionality testing at the Customer Center for System Integration. Once the system is field installed, the engineer will be responsible for the process of defining, documenting and executing coverage testing.

This person shall have the support of the other engineering resources both within and outside of Motorola. This person shall retain "design ownership" for the duration of the project.

1.3.3 SYSTEM TECHNOLOGIST

The System Technologist (ST) has the primary responsibility as the "hands-on" specialist to be the system expert. The ST will have a direct link to the engineer as the system is installed and tested to ensure the integrity of the design. The System Technologist will participate in the staging and testing of the system at the Customer Center for System Integration. The ST will perform the optimization of the High Performance Data equipment.

1.3.4 SUBCONTRACTORS

Motorola will utilize subcontractors that have been screened to ensure adequate knowledge base in trade and are highly reputable. When required, Motorola utilizes subcontractors who are established in the business and professional community, and who meet Motorola's own high standards of quality workmanship and service provided.

1.3.5 ACCOUNT EXECUTIVE

The Account Executive's role will be the liaison that is responsible for addressing the many customer needs that arise from day to day operations as well as issues arising from the system implementation. Following are a list of those functions:

- Assist in configuration and pricing of equipment quotes
- Perform a consultative role in applying Motorola's equipment solutions
- Participate in the staging and support testing of the system
- Assure that Motorola's quality standards are uniformly applied

1.3.6 CUSTOMER SERVICE MANAGER

The Customer Support Manager (CSM) will provide coordination of support resources to enhance the quality of service delivery which will occur after Final Acceptance. The CSM, in conjunction with Hennepin County, will develop a Customer Support Plan (CSP) prior to the beginning of warranty start.

1.3.7 ADMINISTRATIVE STAFF

The project team receives support from division staff and administrative resources. The Motorola project team as needed to support this project will utilize these resources. Our administrative capabilities include:

- Systems Staging Planner
- Contracts Administration
- Credit/ Billing Dept.
- Financial Control Dept.
- Full-scale document reproduction center with high-speed reproduction equipment.
- A purchasing department responsible for making competitive buys of hardware, materials, and purchased labor.

2. PROJECT MANAGEMENT METHODS

A system of this magnitude and complexity proposed by Motorola for Hennepin County requires that the supplier fully understands the concerns attributed to system implementation. Motorola's management resources and technical support services, unique in the communications industry, allow us to respond to Hennepin County's needs with proven experience and full confidence to complete the tasks at hand. The proposed High Performance Data system represents a significant commitment on the part of both Hennepin County and Motorola. Regardless of the sophistication of the system design, superior quality of the proposed hardware and the thoroughness of Motorola's preparation, providing the end product, a functioning system, is a tremendous undertaking. Clearly, an effective method must be established to ensure not only a timely, orderly implementation, but also implementation that will fully optimize system effectiveness. Motorola Program Management is an established, recognized discipline with structured methods that provide the basis for control.

Program Management techniques utilized on other successful projects will be applied to the Hennepin County High Performance Data system in order to effectively plan, schedule, and control project activities.

Motorola Program Management utilizes professional and industry standards as defined by the Project Management Institute (PMI). The Institute establishes standards, supports a research center, provides seminars, and supports educational programs leading to professional certifications. Motorola Project Management personnel attend courses leading to a Masters Certificate and Certification as a Project Management Professional (PMP). The Program Management guidelines that are industry standard and will be utilized on this project include:

- Scope Management
  - Statement of Work
  - Coverage Test Procedures and Criteria
- Time Management
  - Planning
  - Resourcing
  - Costing
  - Risk Mitigation
- Cost Management
  - Tracking costs, inventory, budgets and invoicing
- Change Management
  - Change requests
  - Change orders due to scope change
  - Documentation
- Quality Management
  - Survey
  - Quality Assurance Plans
  - Cycle Time
  - Issue Resolution

2.1 PREPARATION AND DEVELOPMENT

All activities related to any potential site acquisition tasks or site development tasks are the responsibility of Hennepin County.

2.2 SYSTEM IMPLEMENTATION

Implementation of the equipment will proceed according to a plan that the Motorola Project Team and the Hennepin County Team will develop together. This plan will become part of this Statement of Work. The implementation plan will include the following execution tasks:

- Contract Award
- Project Kick-Off Meeting
- Detailed Design Review
- Site Preparation and Development
- Order Process
- Product Manufacturing
- System Staging (CCSI)
- System Installation
- System Integration/Optimization
- System Coverage Testing
- Training
- Finalize Documentation
- Final System Acceptance

The project schedule comprises major project task blocks, relative duration of the tasks, and the sequence in which the tasks will be performed. This schedule will be developed based upon a Notice to Proceed from Hennepin County.

2.2.1 DETAILED DESIGN REVIEW PROCESS

The Detailed Design Process is the point at which Hennepin County and Motorola clearly define the overall design and configuration of the High Performance Data system. This facilitates a clear understanding of the system and its component parts to all the involved parties. The areas that will be covered include, but are not limited to, design criteria, connectivity, console systems, growth requirements, system management needs, power distribution, site designs, site selections, coverage requirements, project schedule and scope reviews.

The result of the detailed design review process is a Detail Design Document (DDD). Among other things, the DDD defines the system components, features and performance requirements, contains a drawing to depict the system and its elements and describes the detailed planning necessary to successfully implement the system.

This document serves as a baseline from which to measure the progress of the system implementation. Any changes to this document will result in a change order.

2.2.2 CUSTOMER CENTER FOR SYSTEMS INTEGRATION (CCSI)

All equipment manufactured by Motorola is extensively tested, both during the assembly process and upon completion of the manufacturing process.

All items manufactured by Motorola are shipped complete with a printout of all standard tests that are conducted upon completion of the manufacturing and final assembly process.

The purpose of system factory testing is to verify that all equipment meets or exceeds Motorola's specifications prior to delivery to Hennepin County. Prior to delivery and installation, the Fixed Network Equipment (FNE) will be shipped to Motorola's Customer Center for Solutions Integration in Schaumburg, Illinois. At the system factory, the High Performance Data system equipment will be assembled in the configuration required for field installation. The following is a brief description of the activities which relate to this effort:

- Specific system application parameters will be loaded on all equipment.
- System levels will be preset on all equipment.
- Physical set-up of all fixed network equipment (FNE) will be performed.
- Equipment will be racked as needed by site.
- Custom length control/audio cables will be provided for each site.
- Coax cables between transmitters, Combiner, receive Multicoupler, and frequency standard cut to nearest five feet.
- Documentation:
  - Copies of all manufacturing factory supplied final test data sheets.
  - System functional block and level diagrams.
  - Listing of all firmware versions in all equipment as shipped from the plant.
  - List of all jumper and dipswitch settings as shipped from the plant.
  - Graphic system assembly drawings by site for equipment installation.
  - System checkout manual for install/power-up upon field installation.
  - Equipment tracking report by site for the system as inputted by the field.
  - Computer disk copies of all available information (except graphics).
  - Printout of all equipment parameter settings and a disk copy of the same
  - System Center test results (check mark to indicate test performed, no failures will be shipped.
- Labeling:

- - All FNE cables will be labeled on both ends with to/from designations.
- - All equipment to be labeled to System Center standards, equivalent to R56 standards.

Motorola highly recommends that representative(s) from Hennepin County travel to Schaumburg, Illinois to witness and participate in the factory staging of the HPD 25 System. Hennepin County is responsible for providing all travel and lodging accommodations for the Hennepin County personnel attending the factory staging.

Throughout all phases of the project, the Project Manager will coordinate the efforts of all Motorola project personnel involved and the Project Director will coordinate the efforts of Hennepin County personnel involved. Motorola's Project Manager and the Hennepin County Project Director will work together to develop the implementation plan, contract administration, revisions to the Implementation Schedule, and review project documentation.

Motorola's Project Manager will be responsible for the timely resolution of any issues that arise that are Motorola's responsibility.

2.3 MONTHLY REPORTS

Throughout the life of the project, Motorola's Project Manager will submit a monthly report to the Hennepin County Project Director that, at a minimum, provides progress information on Motorola's project deliverables as defined by the Detailed Design Document, work completed the previous month, work scheduled for the upcoming month, and issues resolved.

2.4 PROJECT MANAGEMENT TASKS

In addition to completing the Detailed Design Review (DDR) tasks and planning the deliverables previously discussed, Motorola's Project Manager and the project team will handle the managerial, scheduling, engineering and technical tasks associated with:

❖ Engineering Services

- System redesign
- Site equipment changes
- Site relocation / changes

❖ Order Processing

- Enter all orders with equipment manufacturers (system manufacturing)
- Develop a schedule and coordinate the delivery of all equipment to CCSi for staging

- Track all equipment delivery dates and update staging schedules
- Coordinate all required accounting, financial, and credit functions

❖ Central Warehousing

- Inventory shipments as they are received at the central warehouse facility and prepare a report for the Hennepin County Project Director
- Reorder, expedite, and track deliveries of any lost or damaged equipment

❖ Site Inspections

- Inspect each site to ensure readiness for equipment installations and prepare a report for the Hennepin County Project Director
- Prepare a site installation schedule and schedule updates for Motorola's System Technologists (ST) and subcontractors

❖ System Implementation

- Prepare a monthly installation and optimization report for the Hennepin County Project Director
- Complete field programming of infrastructure and infrastructure databases
- Direct the inspection of all site equipment installations by the Hennepin County Project Director
- Conduct the R56 site inspections and develop an itemized punch list of items that must be corrected by both Hennepin County and Motorola
- Provide a R56 completion report on these items and present it to the Hennepin County Project Director

❖ Pre-Final Acceptance Tasks

- Conduct a "readiness" review meeting with the Hennepin County Project Director
- Direct Motorola's engineering team during the High Performance Data system CTP
- Prepare a report on the High Performance Data system coverage tests and deliver it to the Hennepin County Project Director

❖ Final System Acceptance Tasks

- Direct the preparation of all final system documentation and present to the Hennepin County Project Director
- Ensure that all punch list items are completed and documented

❖ Post-Acceptance System Warranty / Maintenance Tasks

- Activate Motorola's Custom Warranty maintenance and 24 x 7 service program on the infrastructure for the High Performance Data system. This includes the three-year Software Subscription Agreement (SSA) for the subsystem infrastructure with Upgrade Assurance Plan.

- Provide monthly system performance and case reports to the Hennepin County Project Director.
- Direct the work of Motorola's technical personnel in completing two infrastructure inspections and adjustments (semi-annual and annual) during the Custom Warranty and provide documentation to the Hennepin County Project Director.

3. GENERAL REQUIREMENTS

3.1 DIVISION OF RESPONSIBILITIES

3.1.1 MOTOROLA RESPONSIBILITIES

Motorola will be responsible for the following:

- ❖ Provide a designated Project Manager to control all the resources and work to be performed by Motorola, and be the primary point of contact for Hennepin County during the project.
- ❖ Schedule and conduct a project "kick-off" meeting with the Hennepin County project team at the project start for execution of project contract deliverables and to coordinate the ensuing project activities with all Motorola and Hennepin County resources.
- ❖ Provide all resources, materials, and equipment to construct and install the fixed site equipment at all sites described in the Statement of Work and the attached Equipment List.
- ❖ Provide site "as-built" documentation package as described in the Statement of Work.
- ❖ Provide the engineering and technical services required for optimization and testing of the 700 MHz High Performance Data system.
- ❖ Provide resources, equipment, and documentation for the purpose of subsystem management and maintenance after Final Acceptance, according to the requirements of the project contract.
- ❖ Conduct a quality audit of all Hennepin County sites to identify any deviations to the R56 quality standards in equipment installation or site civil work.
- ❖ Resolve all deviations to the R56 quality standards, as they pertain to equipment installations.

3.1.2 HENNEPIN COUNTY RESPONSIBILITIES

Hennepin County will be responsible for providing the following:

- A designated Project Director to be the primary contact for Motorola's Project Manager.
- Provide general governance, coordination, and policy oversight.
- Provide a signatory who has the authority to sign all appropriate project documents, FCC licenses, FAA forms, leases, zoning site access, and other permits (including but not limited to planning, commission approval, variances, etc.) required for this project.
- Provide reasonable access at the Hennepin County sites to permit scheduled delivery and installation of the infrastructure equipment.
- Review the work completed by Motorola during the multiple phases of the project and provide a written acceptance of the work performed to date. Motorola will request milestone acceptance of project phases such as individual site installation completions, successful completion of the Coverage Test Plan (CTP) and Final Acceptance. These milestone acceptance phases are intended to acknowledge progress and payment milestones.
- The Hennepin County shall be responsible for ensuring compliance to Metropolitan Emergency Services Board (MESB), Technical Operations Committee (TOC), and System Managers Group (SMG) policies.
- Hennepin County shall be responsible for coordinating efforts with the other system owners or other organizations designated to assist them in their project responsibilities.
- Hennepin County shall authorize acceptance, beneficial use, and warranty start following successful completion of the coverage testing.
- Hennepin County shall identify any outstanding Motorola deliverables and formally request their completion through the mutual development of a project punch list.
- Hennepin County shall be responsible for resolving all deviations to the R56 quality standards as they pertain to site civil work.
- Hennepin County shall grant Final Acceptance upon Motorola's completion of all contractual deliverables.

3.2 PROJECT DELIVERABLES

3.2.1 MOTOROLA DELIVERABLES

As part of the Detailed Design Document (DDD), Motorola will provide Hennepin County with the following deliverables:

- A project Master Schedule which includes the "Start/Finish" dates for both Motorola and the Hennepin County tasks

- The names, addresses, and phone numbers of the key personnel on Motorola's project team
- A "Task and Responsibility" matrix covering the civil work and subsystem installation tasks
- Equipment rack drawings for all sites
- Floor plan drawings showing the agreed upon location of all equipment racks

As part of the Final Documentation package, Motorola will provide Hennepin County with the following deliverables:

- Revised equipment rack drawings
- Revised floor plans showing the final location of all equipment racks
- "Bedsheet" drawings for each of each site
- Documentation of fixed network equipment (FNE) programming parameters
- New and/or revised cable matrices for each site
- Site equipment inventories with model numbers and installation reference
- Equipment software and firmware version numbers
- Equipment programming and level-setting data sheets

3.2.2 HENNEPIN COUNTY RESPONSIBILITIES

As part of the Detailed Design Review (DDR), the Hennepin County will provide Motorola with the following:

- Provide contract administration, including a Project Director
- An approved frequency plan to enable equipment ordering
- Provide a project schedule, with "Start/Finish" dates for the Hennepin County site civil work tasks
- Floor plan drawings for all sites where fixed network equipment will be installed
- Detailed site drawings of towers and buildings showing the proposed antenna mounting locations for all sites where fixed network equipment will be installed
- Site access in accordance with current security requirements

3.3 INTERFERENCE

Motorola has designed the 700 MHz High Performance Data system to meet the interference criteria required by the RFP specifications. Motorola will only take into account the frequencies to be used in the proposed equipment. If requested by Hennepin County, Motorola will provide a quote to conduct and provide an interference analysis for any of the proposed sites. It is the responsibility of the Hennepin County to notify and get the permission of other site users to implement the recommended modifications.

Site data which is required to perform the interference analysis can be gathered by Hennepin County personnel, or if requested by the County, a quote will be provided by Motorola.

4. CONDITIONS FOR WORK

4.1 STANDARD WORK DAY

The standard work day shall be defined to be 8:00 AM to 5:00 PM, Monday through Friday, excluding scheduled holidays, which will be mutually agreed to and noted as such on the project schedule. Neither Motorola nor Hennepin County shall be constrained to this standard workday if they are making up self-imposed delays.

4.2 UNION STATEMENT & PREVAILING WAGE

When it is necessary for Motorola personnel to interact with employees of Hennepin County or any of its subcontractors or associates that are members of a local, state, or national labor organization, Hennepin County shall protect the right of Motorola's personnel and will be solely responsible for any coordination or compensation that results from any action or delay caused by the labor organization. Motorola will be using both union and non-union labor on this project, but in any event, will conform to the labor laws of the State of Minnesota regarding the prevailing minimum wage rate per hour of each classification of work.

4.3 STANDARDS OF WORK

All equipment provided for each site and the techniques used to install that equipment shall comply with; Uniform Building Code, where applicable Motorola R56 Quality Standards for Fixed Network Equipment (FNE) Installation, National Electric Code, and all other applicable codes and ordinances. Motorola's R56 Quality Standard is the measure by which Motorola defines a quality installation. Motorola has supplied one (1) R56 manual for the Hennepin County Project Director, as part of its proposal. Motorola's Project Manager will be responsible for the compliance of these

installation standards, and may request a change of any work not in accordance. The R56 standards also apply to any potential civil work being done by the Hennepin County, or its subcontractors. This includes site items such as internal and external grounding, electrical, 8-foot cable ladder heights in equipment rooms and shelter buildings, since non-compliance could have an impact on data system integrity or hinder Motorola's ability to perform its equipment installations.

4.4 HPD SYSTEM AND EQUIPMENT CONFIGURATIONS

An overall system configuration diagram has been included in Motorola's proposal. The SOW identifies the location of all fixed radio equipment by site. The specific locations of all Motorola-provided equipment racks within each facility will be discussed during the Detailed Design Review (DDR) and will require Hennepin County approval prior to Motorola placing orders.

4.5 SYSTEM IMPLEMENTATION

System implementation includes all required services, including system engineering, equipment manufacture, equipment delivery, installation, system integration, programming, optimization, and documentation.

4.6 EXISTING EQUIPMENT

Unless otherwise stated in the SOW, Motorola's proposal has not taken into account the removal or relocation of existing radio equipment in implementing the new High Performance Data system. If directed by Hennepin County Motorola will provide a quotation for that work.

4.7 INTERFACES

Motorola will require the assistance of the Hennepin County radio maintenance personnel in performing the interfaces to any existing equipment. Motorola has been notified that Hennepin County, or its subcontractors, are providing the microwave and fiber T1s that will be used in this project. If these T1s do not pass Motorola's 24½ hour, end-to-end continuity tests, Motorola will require Hennepin County, or its subcontractors, to troubleshoot the microwave and/or fiber equipment to find and repair the cause of the failure. Hennepin County is responsible for the cost of having their subcontractors on-site to perform these tests and repairs.

4.8 PRIOR NOTIFICATION

Motorola will notify the Hennepin County Project Director ten days prior to the scheduled delivery of equipment to the various sites and starting the equipment

installations. During such prior coordination Hennepin County may direct that their Project Manager, or designated representative, be on-site prior to the initiation of any such work.

4.9 LICENSING

It is the responsibility of Hennepin County to file the necessary FCC and microwave radio co-ordinations and application to obtain operating license and/or waivers for the frequencies required for the new High Performance Data system. Should it become necessary for Hennepin County to respond to any FCC inquiry concerning work, repairs, etc, on the new High Performance Data system, Motorola will provide the technical information necessary to enable Hennepin County to fully respond to the inquiry. In no event will Motorola or any of its employees be an agent or representative for Hennepin County in FCC matters. Hennepin County is solely responsible for submitting the required co-ordination fees, obtaining all FCC licenses, and for complying with FCC rules. Hennepin County must provide to Motorola copies of FCC license(s) or other operating authorization(s) prior to any site or system testing. Motorola cannot complete any activities beyond site installation and site optimization without evidence of FCC license(s) or other operating authorization(s).

4.10 SITE ACCESS

The Motorola SOW and services pricing assume easy and timely access to all sites for equipment delivery, installation, optimization, and testing. Motorola will comply with the Hennepin County security requirements for all sites.

4.11 TITLE TRANSFER AND EQUIPMENT DELIVERY

After staging the subsystem equipment at its Schaumburg, Illinois CCSi facility, Motorola plans to ship the equipment to the Beltmann Group, Inc. warehouse located in Roseville, Minnesota for inventory control and damage checks, prior to delivering it to the Hennepin County sites.

Motorola has included two (2) months of storage costs as part of its proposal pricing. If the Hennepin County sites are not ready to receive the equipment two months after the date the equipment is delivered to the Beltmann Group warehouse, then Hennepin County must make arrangements for warehousing or agree to pay the additional storage charges incurred by Motorola. The shipping costs incurred when moving the equipment to a secure Hennepin County storage facility will be the responsibility of Hennepin County. Equipment title will transfer to Hennepin County, when the equipment ships from Motorola's Schaumburg, Illinois facility. Motorola will retain "Risk of Loss" until the equipment is removed from the Beltmann Group warehouse

and delivered to either the designated Hennepin County site or another Hennepin County storage facility.

4.12 SAFETY NOTICE

The maintenance and installation manuals provided by Motorola indicate all safety precautions to be taken by personnel employed in the installation, operation, or maintenance of the RF stations.

Hennepin County is responsible for entering complete information on all transmitters and antennas that will be operating on each site, and conducting any final Electromagnetic Energy (EME) calculations required by the FCC Rules and Regulations [47 C.F.R. 1.1307(b), 1.1310, 2.1091, 2.1093] to determine compliance with Maximum Permissible Exposure (MPE) limits. Hennepin County is also responsible for obtaining and installing the proper signage, as required, at the radio sites and conducting any training classes for personnel that must enter those areas to perform their work.

4.13 CLEAN UP

Each day during the process of work, the areas affected shall be kept clean and free of all rubbish, debris, and surplus materials. All unneeded equipment and materials shall be removed from the site and all damage repaired so that the Hennepin County and the public are inconvenienced as little as possible.

On or before the completion of work, Motorola shall, unless otherwise directed in writing, remove all temporary works, tools, machinery or other construction or installation equipment placed by Motorola. Motorola shall remove all rubbish from any grounds which Motorola has occupied and shall leave all of the premises and adjacent property affected by the operation in a neat and reasonably restored condition satisfactory to the Hennepin County Project Director.

4.14 SUBSCRIBER EQUIPMENT PROGRAMMING

Motorola has included no subscriber programming in this Statement of Work and the cost of the subscriber programming is not included in the services pricing.

4.15 INFRASTRUCTURE PROGRAMMING

Motorola's Project Manager, Project Engineer, and System Technologists will work with the Hennepin County Project Director to define the programming for the fixed network infrastructure. This programming will take place during the subsystem

optimization phase, prior to coverage testing. Motorola will be responsible for any required infrastructure programming prior to Final Acceptance of the High Performance Data system by the Hennepin County.

5. SITE REQUIREMENTS

5.1 SITE DEVELOPMENT AND GENERAL REQUIREMENTS

Motorola has not visited all sites proposed for use in the Hennepin County High Performance Data system. It is understood that none of the sites will require major civil construction or renovation prior to the installation of the High Performance Data system. Additionally, it is understood that Hennepin County will ensure required space at all sites for installation of Motorola equipment. Any site civil construction, renovation, or preparation of the sites is the responsibility of Hennepin County. Motorola understands that Hennepin County will provide and install all required antenna support structures, structural engineering assessments of existing antenna support structures, HVAC equipment, antenna mounting pipes, building penetrations (cable entry ports) with boots, cable ladders above the equipment racks, all internal and external grounding and surge suppression equipment required to conform to Motorola's R56 Standards, transmission line ice bridges, AC and DC power, and emergency power.

5.1.1 SITE DEVELOPMENT

Site development is limited to specific detail for each site, which can be found in the "Site Detail" section of the SOW. No other site development is offered or implied by Motorola.

5.1.2 STRUCTURAL DESIGN

Structural design reviews are not part of this SOW. Motorola has not included structural analysis or building modification costs in the proposal pricing. If it is determined that structural improvements or reinforcement is required, Motorola can provide a separate quotation for this work.

5.1.3 ELECTRICAL DESIGN

During the DDR phase of the project, joint design reviews should be conducted for all sites with existing power distribution systems to assure suitable and stable power conditions and to avoid negative effects on any existing equipment. Motorola will furnish Hennepin County with the power consumption specifications for all equipment proposed in our Equipment list.

5.1.4 SITE GROUNDING, LIGHTNING AND SURGE PROTECTION

It is strongly recommended that the internal and external grounding systems at all sites meet Motorola's R56 Standards and Installation Guidelines for Communication Sites. It is in the best interest of Hennepin County to make every reasonable effort to comply. Providing and installing the internal and external grounding systems at the sites is the responsibility of Hennepin County, or its subcontractors.

5.2 PERMITS AND LICENSES

If a local government entity requires an additional permit to mount antennas on a particular tower or structure, Hennepin County shall file for, and pay for these permits, prior to Motorola starting installations. Motorola has not included any civil engineering or licensed professional engineering service costs in its proposal. Such certifications would be considered changes to the original scope of work and dealt with as change orders. This includes, but is not limited to electrical, heating, ventilation, cooling, plumbing, structural, environmental, seismic, etc., certifications.

Hennepin County will be responsible for obtaining any agreements and permits required by any city, county, or state agency prior to Motorola starting equipment installations at that site. Any changes or upgrades of pre-existing conditions identified as required to meet current city, county, state, or other applicable codes will be considered as changes to the original Statement of Work and dealt with as a Change Order.

5.3 FLOOR LAYOUT

It is the responsibility of Hennepin County to provide adequate space to house the Motorola equipment racks. Where an existing shelter building or equipment room will be used, Motorola has provided a floor plan layout as part of its proposal. The layouts show the location of the 7-foot high equipment racks. The Hennepin County's Project Director and Motorola's Project Manager will agree on the final equipment rack locations at each site, and sign-off on the layouts, prior to Motorola submitting equipment orders. No installation work will begin without the written approval of Hennepin County's Project Director, provided that such approval shall not be unreasonably withheld or delayed.

5.4 ELECTRICAL WIRING AND CIRCUITS

All equipment in Motorola's equipment list has been designed to operate on -48V DC or 120 VAC commercial power.

It is the responsibility of Hennepin County to provide primary AC power and required DC power at all sites. All AC outlets for the equipment must be installed

within six feet of the proposed equipment installation locations. AC outlets can be installed on the side of the cable ladders in the equipment rooms and shelter buildings. Motorola's sole responsibility regarding AC electrical power installation is plugging the Motorola-supplied equipment into the AC outlets. If overhead receptacles are used for equipment power, it will be the responsibility of Hennepin County to supply and install UL approved locking plugs.

5.5 TELEPHONE, MICROWAVE AND OPTIC FIBER CIRCUITS

Under the current design, Motorola requires no telephone circuits at any of the sites. If Hennepin County wishes to provide a telephone at the sites, it will be the responsibility of the Hennepin County, or their subcontractor, to provide those telephone circuits. It is the responsibility of the Hennepin County to provide and install the fiber optic and fiber interface panels that will be required to connect the controller equipment to the Golden Valley Master site. Hennepin County is also responsible for providing and installing any microwave equipment required for this project, including the microwave T1 interface panels. Both the fiber and microwave T1 interface panels must accommodate RJ45 plugs.

5.6 FRESH-AIR VENTILATION, HEATING, AND AIR CONDITIONING

Hennepin County is responsible for providing and installing the building ventilation, heating, and air conditioning equipment at all equipment locations.

5.7 ANTENNAS AND ANTENNA SUPPORT STRUCTURES

Hennepin County is responsible for the installation of all antennas and lines and antenna support structures.

5.8 RADIO INSTALLATION REQUIREMENTS

Motorola or its subcontractor will install all equipment, except antennas and line, included in our Equipment List. The installation price of all fixed equipment has been included in the proposal. All of Motorola's installation technicians have the appropriate training and experience to perform the required work. The 700 MHz High Performance Data system will be installed, optimized and tested with a minimum of interference to existing public safety communications systems.

5.9 FIXED EQUIPMENT INSTALLATION

All fixed radio equipment racks will have at least three feet of front and rear access space to allow a technician to perform repairs. If an equipment rack is mounted away from a wall, power cords and other cables will be protected so that people in the access space will not step on, trip over, or accidentally pull out power plugs or

damage the cables. It is the responsibility of Hennepin County, or its subcontractors, to provide AC power outlets on the wall or on the side of the cable ladders, above the equipment racks.

5.10 TERMINATIONS

Motorola will provide and install wall-mounted punch blocks for inter-equipment connections, including alarm contact wiring, although most inter-equipment terminations use patch panels. During DDD, Motorola will define the space required for the punch blocks and will mount the punch blocks on an appropriately sized fire retardant plywood sheet, which will be provided and installed by Hennepin County or its subcontractors. Motorola's installation technicians will provide and install all wiring between the Motorola-provided equipment and the punch blocks. Hennepin County, or its subcontractors, will be responsible for installation of all wiring between Motorola's punch blocks and the punch blocks installed by the Hennepin County subcontractors when intersystem interfacing is required. Motorola will provide and install all cables between the glass fiber and/or microwave interface panels and the channel banks, radio equipment, the base sites, and the Golden Valley prime Site equipment.

5.11 SITE EQUIPMENT AC AND DC POWER REQUIREMENTS

5.11.1 AC POWER REQUIREMENTS

Hennepin County shall provide and install AC surge suppression panels to protect the on-site equipment. Descriptions of these panels can be found in the R56 Quality Standards manual. Hennepin County is responsible for providing and installing all AC panels and circuit wiring, including AC surge protectors, on the line side, for all equipment connected to a 120 VAC power source that is not protected by a UPS.

Motorola has not included the costs for electrical inspections and analysis or modifications to existing AC power panels in its proposal.

5.11.2 DC POWER REQUIREMENTS

Hennepin County will provide and install battery chargers/rectifiers and the inter-rack DC wiring to provide 48VDC power to the 700 MHz GMR8000 base radio stations. The DC power bays should be designed with multiple chargers/rectifier in an N+1 protection configuration, to supply the load on the battery supply, and battery recharging current, as that load is determined by Motorola based on a minimum of 100% transmit time.

There will be a fuse, or other suitable disconnect, provided and installed in the DC power bay, to remove any battery that fails into a short circuit or low resistance condition. Battery disconnect alarms would normally be carried back to a central monitoring point using Motorola's MOSCAD equipment. Hennepin County RFP does not state MOSCAD equipment is to be included in Motorola's proposal and we have complied with that requirement. It is unknown at this time how these site alarms will be connected to the microwave alarm network to alert monitoring personnel of a battery disconnect.

Batteries should be designed and manufactured for a minimum of 10 years service life and for high discharge rates. Batteries should not emit explosive gasses into un-vented spaces.

Each Motorola GMR8000 base radio station will be provided with a separate circuit breaker, mounted in a DC distribution panel in the top of the GMR8000 equipment rack. Each GMR8000 rack is connected to a separate panel-mounted breaker on the DC power bay.

All breakers in the DC power bay will be labeled to identify the equipment or rack connection.

5.12 SITE INTERNAL GROUNDING REQUIREMENTS

Hennepin County, or its subcontractors, shall provide a single point ground system, typically a Master Ground Bus Bar (MGB) within each shelter building or equipment room where all communications equipment, ancillary support equipment, antenna coaxial cables, transient voltage surge suppression (TVSS) devices, and utility grounds are bonded. The MGB shall be installed in each shelter building or equipment room area within 24" of the point where the transmission lines enter the structure. Hennepin County shall provide and install a ground bus conductor, a #2 AWG THHN, green-jacketed copper conductor, attached to the MGB and installed in or below the cable ladder at each site.

All Motorola-provided equipment racks will be connected to the ground bus conductor, using and irreversible crimp and a #2 AWG THHN green-jacketed conductor. Equipment within the Motorola-provided racks will be connected to the Motorola-provided Rack Ground Bar (RGB) with a #6 AWG THHN green-jacketed conductor.

All Hennepin County provided cable ladder sections will be properly bonded together, using a #6 AWG THHN green-jacketed conductor, and connected to the Master Ground Bar (MGB).

At each site, Motorola's Project Manager will coordinate with Hennepin County site representative or the Project Director to ensure compliance with any special

provisions applicable to the site and relevant to site equipment grounding requirements.

5.13 SITE EXTERNAL GROUNDING REQUIREMENTS

Hennepin County or its subcontractors are responsible for providing and installing the external grounding system required at each site. The external grounding system is required to meet Motorola's R56 Quality Installation Standards which are based upon NFPA, NFPA 780, ANSI T1.313-1997, and ANSI/EIA/TIA-222-F. These requirements and guidelines enhance personal safety and equipment reliability. Ground bars are to be installed at the top and bottom, where the transmission lines leave the structure to go to the shelter building, of each antenna support structure. These ground bars shall be interconnected to provide a common ground potential. At a communications site, there shall be only one grounding electrode system for lightning protection, electric service, telephone, underground metallic piping systems, and antenna system grounds.

Hennepin County or its subcontractors are responsible for providing and installing transmission line ground kits to meet the R56 Standards for all existing (legacy) antenna systems that are to remain on-site and the microwave antenna and waveguide systems at the sites.

5.14 TEST EQUIPMENT

Motorola has not included test equipment as part of this proposal.

5.15 TRAINING

Motorola has not provided prices for any technical or user training options as part of this proposal. Training options will be discussed as part of the Detailed Design Review (DDR).

5.16 SPARE PARTS

Motorola has not included a list of optional spare parts in this proposal. Spares will be discussed as part of the Detailed Design Review (DDR).

5.17 COMPUTER EQUIPMENT

Hennepin County may wish to provide a dedicated, IBM-compatible, personal computer for Customer Programming Software (CPS) programming and storage. The computer can also be used for future use in programming control stations. Minimum computer requirements can be provided by Motorola during the Detailed Design Review (DDR). Motorola's proposal does not include the cost of this computer.

6. DETAILED DESIGN REVIEW (DDR)

6.1 DETAILED DOCUMENTATION

As soon as practical after execution of the Contract Hennepin County shall provide Motorola with detailed shelter building, equipment room and antenna support structure information, and drawings. Motorola will review and edit the system design data provided as part of our proposal, as appropriate, based upon a review with Hennepin County representatives. At the completion of the review and editing process, Hennepin County will review and approve the detailed design data. Based upon the timing, the design work involved, and the impact on the existing project schedule, system changes, additions, or deletions will be handled as a Change Order to the Contract.

As part of the Detailed Deign Document (DDD) Motorola will provide Hennepin County with the following diagrams and drawings:

- System block diagrams showing all major components.
- For all fixed network equipment to be installed at each site, Motorola will provide the power requirements, including voltage levels, DC requirements, single or 3-phase power required, and the amount of power required in kilowatts, based upon a 100% utilization factor for each base radio station, and the power dissipation.
- Module layouts for major items of radio equipment, as they pertain to the equipment being purchased by Hennepin County from Motorola.
- Equipment rack profiles for radio equipment being purchased by Hennepin County from Motorola.
- Building floor plans showing the locations of all Motorola-provided equipment racks.

In addition to the drawings and diagrams, Motorola will also provide documentation to Hennepin County for review and comment. This documentation will include:

- FCC licensing information and exhibits.
- The names and telephone numbers of key personnel on Motorola's project team.

- A finalized Implementation Schedule, based upon the "Start/Finish" dates of Hennepin County tasks and Motorola's manufacturing, installation, optimization, and testing tasks.
- Once the Detailed Design Review tasks are completed, Motorola' Project Manager will work with the Hennepin County Project Director to identify and process all Change orders associated with this phase of the project.

6.2 MIGRATION PLANNING

Motorola's proposed plan will require migration from the interim HPD 25 solution to HSD 50. Implementation of the High Performance Data system will be conducted in three phases. Phase 1, site-pre-planning, is part of the DDR. Phase I will also include Hennepin County's site preparation, joint consultation, and equipment manufacture. Phase II will include equipment installation, optimization, and coverage testing of HPD 25. Phase III will include equipment installation, optimization, and coverage testing of HSD 50.

6.2.1 PHASE I: DETAILED DESIGN REVIEW

As soon as practical after execution of the Contract, the Motorola and the Hennepin County project teams will meet to discuss Hennepin County's site preparations and Motorola's proposal. The preliminary SOW will be reviewed and the responsibilities of each party will be clarified and itemized for each site. Motorola's equipment list will be reviewed and discussed in light of the site requirements and changes made where appropriate. These meetings will take place during the Detailed Design Review (DDR) process and ultimately produce the Detailed Design Document for the Hennepin County High Performance Data system. The purpose of these meetings is to allow either party to identify and resolve potential issues, answer questions evolving from the RFP and the proposal, and clarify the responsibilities of both parties.

Phase I will have the following outcomes:

- A clear understanding of the equipment to be installed at each site
- Where the equipment will be installed at each site
- Where any support equipment (e.g. AC outlets, DC power cables, UPS and cable ladders) will need to be installed
- What pieces of equipment may have to be relocated

- What parties are responsible for each task
- The order and time frame for each task in the Implementation Schedule.

6.2.2 PHASE I: SITE PREPARATION, CONSULTATION AND MANUFACTURING

During Phase I, Motorola will be ordering and manufacturing the equipment required for the project and shipping it to CCSi for set-up, cabling, programming, and testing. Hennepin County will be ordering required equipment and completing the site work tasks to prepare the sites for equipment and antenna systems installations. Motorola and Hennepin County will need to consult to clarify issues and answer questions as they arise.

6.2.3 PHASE II: HPD 25 EQUIPMENT INSTALLATION

Motorola and its subcontractors will install all Motorola-provided equipment in accordance with the Contract, the Detailed Design Document (DDD), and the R56 Installation Standards and Guidelines. During Phase II, the following activities occur:

- Verification that the Hennepin County site preparations meet the requirements for the 700 MHz High Performance Data system
- Installation of the AC/DC power, 700 MHz High Performance Data system
- Installation inspections and acceptance sign-offs by the Hennepin County Project Director
- Installation of equipment and network transport panels by the Hennepin County or its subcontractors

6.2.4 PHASE II: SYSTEM OPTIMIZATION AND COVERAGE TESTING

Part of the Implementation Schedule generated by Hennepin County and Motorola during the Detailed Design review, will establish the rate at which work is completed and will identify mutually agreed upon project milestones for site installation completions and inspections, Coverage Test Plan (CTP), and Final Acceptance.

During Phase II of the project the following activities will occur:

- Motorola will perform continuity tests on the microwave and fiber T1s
- Motorola will optimize the 700 MHz High Performance Data system
- Motorola will perform the Coverage Test Plan (CTP) to demonstrate coverage of the High Performance Data system

Motorola's proposal and price offering is based on the preliminary ATP submitted as part of Motorola's proposal and roles and responsibilities defined within the SOW.

These documents will be reviewed during the Detailed Design Review (DDR). Should changes to roles and responsibilities be desired they can be addressed at that time using the change order process as required.

6.2.5 PHASE III: HSD 50 EQUIPMENT INSTALLATION

Motorola and its subcontractors will install all Motorola-provided equipment, in accordance with the Contract, the Detailed Design Document (DDD), and the R56 Installation Standards and Guidelines. During Phase III, the following activities occur:

- Installation of base station upgrades at all sites.
- Installation inspections and acceptance sign-offs by Hennepin County Project Director

6.2.6 PHASE III: SYSTEM OPTIMIZATION AND COVERAGE TESTING

Part of the Implementation Schedule generated by Hennepin County and Motorola during the Detailed Design review, will establish the rate at which work is completed for this phase and will identify mutually agreed upon project milestones for site installation completions and inspections, Coverage Test Plan (CTP), and Final Acceptance.

During Phase III of the project the following activities will occur:

- Motorola will coordinate with the Hennepin County Project Director to transition from the HPD 25 system to the HSD 50 system
- Motorola will optimize the 700 MHz High Performance Data system
- Motorola will perform the Coverage Test Plan (CTP) to demonstrate coverage of the High Performance Data system

6.3 MOTOROLA CCSI STAGING ACTIVITIES

Motorola's Customer Center for Systems Integration (CCSi) in Schaumburg, Illinois, will be responsible for the following system staging tasks prior to factory acceptance testing and shipment to Motorola's warehouse facility in Roseville, Minnesota.

- **Track Equipment Inventory** – CCSi personnel ensure that all hardware and software is received on-time, organized by site, and inventoried to prevent unnecessary delays.
- **Expedite Late or Missing Equipment** – CCSi personnel will expedite any late or missing equipment or software.

- **Physical System Setup** – Once equipment has been delivered to CCSi, the equipment and all associated hardware is installed in racks in accordance with the Detailed Design Document (DDD) floor plan layouts.
- **Cables and Labeling** – All cables required at each of the Hennepin County sites will be cut to the specific length, based upon the DDD information regarding rack locations, cable ladder height, and rack height. Labels, with the "To/From" port information, will be created, numbered, and placed on each end of the cables. A cable matrix will be created and shipped to the field as part of the "As Built" information. This matrix is also used to create the "bedsheet" drawings that will be part of the project documentation package.
- **Cable Connectorization** – All equipment cables will have the proper connectors installed, except those terminating at a punch block, and the cables are tested for proper operation.
- **Confirmation of Subsystem Configurations** – CCSi technicians and engineers will confirm the subsystem configurations to validate proper assembly.
- **Repair or Replace DOA Equipment** – CCSi personnel will repair, coordinate repair or coordinate the replacement of defective equipment prior to factory testing of the High Performance Data system.
- **Loading of Application Software** – CCSi personnel will load application software on the equipment, set subsystem/system parameters, and test the feature sets.
- **Factory Acceptance Tests** – CCSi personnel and the Motorola project team will conduct individual equipment (box) tests, site tests, and subsystem tests, prior to conducting the Factory Acceptance Test (FAT) to be witnessed by the Hennepin County project team.
- **Prepare for Shipment** – After successful completion of the Factory Acceptance Test (FAT), CCSi personnel will package and label the equipment, by site, and ship all equipment, via electronic vans, to Motorola's local warehouse facility, the Beltmann Group warehouse in Roseville, Minnesota.

7. SITE INSTALLATION DETAILS

Motorola has not visited each of the fourteen (14) proposed Hennepin County sites. It is understood that none of the sites will require major civil construction or renovation prior to the installation of the High Performance Data system. Additionally, it is understood that Hennepin County will ensure required space at all sites for installation of Motorola equipment..

7.1 GOLDEN VALLEY

This will be the Master site for the proposed data system and serve as a base site. Roles and responsibilities of Motorola and Hennepin County are outlined in the matrix contained at the end of this SOW.

Motorola will provide and install the following equipment at the Golden Valley Master site:

Master Site – Golden Valley

- Redundant Zone Controller
- Site Licenses (20)
- User Licenses (1000)
- ASTRO®25 HPD Software
- Network Management Servers – (1) Zone Database Server, (1) Fullvision, (1) User Configuration Server and (1) NM Switch
- Local Network Management Client (2)
- Network Time Synchronization (1)
- Master Site Zone Core Ethernet Switches (2)
- Redundant Core Routers (2)
- Redundant Gateway Routers (2)
- Packet Data Gateway (1)
- Gateway Service Node - GGSN Router (1)
- Network Security Interface – (1) Core Security Management Server, (1) Firewall and Intrusion Detection Sensor
- Customer Network Interface Barrier – (1) Peripheral Router, (10) Border Router and (1) DMZ Switch
- Miscellaneous Racks, Surge Suppression, Cables and Adapters

Base Site Equipment – Golden Valley Site

- 700MHz ASTRO®25 HPD Transceiver (4)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

Base Site Equipment – Golden Valley Site HSD 50 Migration

- Motorola will provide and install equipment required to upgrade this site.

7.2 MEDINA

This will be a base site for the proposed data system. Roles and responsibilities of Motorola and the Hennepin County are outlined in the matrix contained at the end of this SOW.

Motorola will provide and install the following equipment at the Medina base site:

- 700MHz ASTRO®25 HPD Transceiver (3)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

7.2.1 MEDINA HSD 50 MIGRATION

Motorola will provide and install equipment required to upgrade this site.

7.3 HCGC

This will be a base site for the proposed data system. Roles and responsibilities of Motorola and the Hennepin County are outlined in the matrix contained at the end of this SOW.

Motorola will provide and install the following equipment at the HCGC base site:

- 700MHz ASTRO®25 HPD Transceiver (6)
- Redundant ASTRO®25 HPD Site Controllers (4)
- Site Router (2)
- Miscellaneous Cables and Adapters

7.3.1 HCGC HSD 50 MIGRATION

Motorola will provide and install equipment required to upgrade this site.

7.4 HEALTH PARTNERS

This will be a base site for the proposed data system. Roles and responsibilities of Motorola and the Hennepin County are outlined in the matrix contained at the end of this SOW.

Motorola will provide and install the following equipment at the Health Partners base site:

- 700MHz ASTRO®25 HPD Transceiver (2)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

7.4.1 HEALTH PARTNERS HSD 50 MIGRATION

Motorola will provide and install equipment required to upgrade this site.

7.5 ANOKA GOVERNMENT CENTER

This will be an optional base site for the proposed data system. Roles and responsibilities of Motorola and the Hennepin County are outlined in the matrix contained at the end of this SOW.

Motorola will provide and install the following equipment at the Anoka Government Center base site:

- 700MHz ASTRO®25 HPD Transceiver (2)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

7.5.1 ANOKA GOVERNMENT CENTER HSD MIGRATION

Motorola will provide and install equipment required to upgrade this site.

7.6 SHAKOPEE

This will be a base site for the proposed data system. Roles and responsibilities of Motorola and the Hennepin County are outlined in the matrix contained at the end of this SOW.

Motorola will provide and install the following equipment at the Shakopee base site:

- 700MHz ASTRO®25 HPD Transceiver (1)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

7.6.1 SHAKOPEE HSD 50 MIGRATION

Motorola will provide and install equipment required to upgrade this site.

7.7 NORWOOD

This will be an optional base site for the proposed data system. Roles and responsibilities of Motorola and the Hennepin County are outlined in the matrix contained at the end of this SOW.

Motorola will provide and install the following equipment at the Norwood base site:

- 700MHz ASTRO®25 HPD Transceiver (1)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

7.7.1 NORWOOD HSD 50 MIGRATION

Motorola will provide and install equipment required to upgrade this site.

7.8 B108

This will be an optional base site for the proposed data system. Roles and responsibilities of Motorola and the Hennepin County are outlined in the matrix contained at the end of this SOW.

Motorola will provide and install the following equipment at the B108 base site:

- 700MHz ASTRO®25 HPD Transceiver (1)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

7.8.1 B108 HSD 50 MIGRATION

Motorola will provide and install equipment required to upgrade this site.

7.9 FOREST LAKE

This will be an optional base site for the proposed data system. Roles and responsibilities of Motorola and the Hennepin County are outlined in the matrix contained at the end of this SOW.

Motorola will provide and install the following equipment at the Forest Lake base site:

- 700MHz ASTRO®25 HPD Transceiver (1)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

7.9.1 FOREST LAKE HSD 50 MIGRATION

Motorola will provide and install equipment required to upgrade this site.

7.10 NORTH BRANCH

This will be an optional base site for the proposed data system. Roles and responsibilities of Motorola and the Hennepin County are outlined in the matrix contained at the end of this SOW.

Motorola will provide and install the following equipment at the North Branch base site:

- 700MHz ASTRO®25 HPD Transceiver (1)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

7.10.1 NORTH BRANCH HSD 50 MIGRATION

Motorola will provide and install equipment required to upgrade this site.

7.11 KINGSTACK

This will be an optional base site for the proposed data system. Roles and responsibilities of Motorola and the Hennepin County are outlined in the matrix contained at the end of this SOW.

Motorola will provide and install the following equipment at the Kingstack base site:

- 700MHz ASTRO®25 HPD Transceiver (1)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

7.11.1 KINGSTACK HSD 50 MIGRATION

Motorola will provide and install equipment required to upgrade this site.

7.12 EMPIRE TOWER

This will be an optional base site for the proposed data system. Roles and responsibilities of Motorola and the Hennepin County are outlined in the matrix contained at the end of this SOW.

Motorola will provide and install the following equipment at the Empire Tower base site:

- 700MHz ASTRO®25 HPD Transceiver (1)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

7.12.1 EMPIRE TOWER HSD 50 MIGRATION

Motorola will provide and install equipment required to upgrade this site.

7.13 HASTINGS

This will be an optional base site for the proposed data system. Roles and responsibilities of Motorola and the Hennepin County are outlined in the matrix contained at the end of this SOW.

Motorola will provide and install the following equipment at the Hastings base site:

- 700MHz ASTRO®25 HPD Transceiver (1)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Router (1)
- Miscellaneous Cables and Adapters

7.13.1 HASTINGS HSD 50 MIGRATION

Motorola will provide and install equipment required to upgrade this site.

7.14 RAMSEY COUNTY BUILDING

This will be an optional base site for the proposed data system. Roles and responsibilities of Motorola and the Hennepin County are outlined in the matrix contained at the end of this SOW.

Motorola will provide and install the following equipment at the Ramsey County base site:

- 700MHz ASTRO®25 HPD Transceiver (1)
- Redundant ASTRO®25 HPD Site Controllers (2)
- Site Ethernet Switch (1)
- Site Router (1)
- Miscellaneous Cables and Adapters

7.14.1 RAMSEY COUNTY BUILDING HSD 50 MIGRATION

Motorola will provide and install equipment required to upgrade this site.

8. PROJECT SCHEDULE

A preliminary project schedule has been included at the end of the Statement of Work showing the time required to complete the various Phase I Motorola tasks. Installation of the Motorola-provided equipment and completion of the other Motorola tasks are totally dependent on the Hennepin County schedule for completing all site agreements, civil work, installing and optimizing the microwave and fiber links, and FCC licensing.

At the completion of the Detailed Design Review (DDR), a revised timeline will have been created that reflects the mutually agreed upon tasks of both Hennepin County and Motorola and the respective task "Start/Finish" dates. Motorola and the Hennepin County will perform their respective tasks and responsibilities in accordance to the Final Implementation Schedule.

8.1 MILESTONE COMPLETION CERTIFICATIONS

Certification of work completed is required at certain milestones in the project implementation progress. These milestones may trigger the issuance of an invoice or signify task completion and Hennepin County's acceptance of the work completed, or both, depending upon the contract payment terms.

8.1.1 EXECUTION OF CONTRACT

When Motorola and Hennepin County complete contract negotiations and execute a contract a billing milestone is reached. At this point, Motorola will release "build" orders to its manufacturing facilities and suppliers.

8.1.2 SHIPMENT OF SYSTEM EQUIPMENT/DELIVERY TO LOCAL WAREHOUSE

Equipment title passes to Hennepin County when the equipment ships from Schaumburg, Illinois, to the local Beltmann Group warehouse in Roseville, Minnesota. Risk of Loss remains with Motorola until the equipment is delivered to the various Hennepin County sites or if civil work has been delayed, to another storage location designated by Hennepin County after two months in the Beltmann Group warehouse.

When the equipment is received at the local warehouse, Motorola will verify all items have been delivered and create an inventory list that will be presented to the Hennepin County Project Director.

8.1.3 SITE INSTALLATION ACCEPTANCE CERTIFICATE

Motorola will begin delivering and installing equipment as soon as the site work is completed at a particular Hennepin County site. The Site Installation Acceptance certificate signifies that the Hennepin County Project Director and the Motorola Project Manager have verified that the required equipment installation work has been completed at that site. Motorola will invoice Hennepin County according to the Contract payment terms.

8.1.4 ACCEPTANCE CERTIFICATE

Signing of the Acceptance Certificate signifies that the Hennepin County agrees that the Motorola-supplied equipment has been installed as contracted and the High

Performance Data system operates as designed. Motorola will invoice Hennepin County according to the Contract payment terms. There may be some minor punch list items that are still to be completed. Signing of the Acceptance Certificate acknowledging punch list resolution signifies that Hennepin County agrees that all work to be performed by Motorola under the Contract has been completed, all punch list items have been resolved, all deliverables have been delivered, and final billing can take place.

SAMPLE

Hennepin County 700 MHz High Performance Data system
Site Installation Completion Sign Off Certificate

Medina

Site Installation Completion Tasks

1	All racks are grounded per R56 Installation Guidelines
2	All channel banks are grounded per R56 Installation Guidelines.
3	All networking equipment is grounded per R56 Installation Guidelines.
4	All RF equipment is grounded per R56 Installation Guidelines.
5	Cables are run and neatly dressed in the cable tray/ladder.
6	Cables are neatly dressed on the equipment racks.
7	All racks are bolted per site requirements.
8	AC power is connected and turned “On”.
9	DC power is connected and turned “On”.
10	All LAN/WAN cables are installed.
11	GPS/TRAK units are tracking and locked.
12	Antennas and coax are installed per R56 Installation Guidelines
13	All coax lines are swept and documented.
14	Site is cleaned.

By signing this document, Hennepin County and Motorola signify that the tasks identified above have been successfully completed and that the attached punch list items will be resolved by Final Acceptance. Upon site sign off, Motorola will invoice Hennepin County according to the Contract Milestone Payment Terms.

Hennepin County Representative	**Motorola, Inc. Representative**
_____	_____
(Signature)	(Signature)
_____	_____
(Print Name)	(Print Name)
_____	_____
(Date)	(Date)

Sample

CERTIFICATE OF SYSTEM ACCEPTANCE

Customer Name:

Project Name:

Customer name agrees that all major provisions of the project provided by Motorola are complete and ready for the use intended, except for any minor defects and/or punchlist items noted below:

The items listed below will be corrected by Motorola:

Item Description	Completion Date
1.)	
2.)	
3.)	

☐ No defects or punchlist is applicable.

This agreement documents to the start of warranty on _enter date here_, and authorizes Motorola to bill for the remaining value of the contract, and it indicates Customer's Name agreement to make final payment.

Customer Representative:		Motorola Representative:	
Print Full Name	_____	Print Full Name	_____
Title	_____	Title	_____
Signature	_____	Signature	_____
Date	_____	Date	_____

All punchlist items noted on this document are complete.

Customer Representative:		Motorola Representative:	
Print Full Name	_____	Print Full Name	_____
Title	_____	Title	_____
Signature	_____	Signature	_____
Date	_____	Date	_____

8.2 CHANGE ORDER PROCESS

Occasionally, unanticipated circumstances will warrant modifying the Statement of Work after the Contract is executed. Utilization of a formal Change Order process will ensure that all variations from the proposal and the Statement of Work are properly documented.

A Change Order is required any time a revision impacts any of the following:

- The value of the Contract, or
- The Statement of Work, to include:
  - Significant changes in the deliverables, or
  - Changes in major schedule milestones.

Change Orders will be in writing and agreed to by both Motorola and the Hennepin County Project Director. Motorola will maintain the formal documentation denoting the agreed-upon changes. Two identical master copies will be held: one by the Hennepin County, the other by Motorola. Revisions will be made by changes resulting from subnet or schedule changes or documentation updates.

Change Order must comply with the Contract terms and conditions. Under no circumstances will a change in scope or an extension in schedule be performed without an executed, mutually signed and approved, change order document. The party requesting the change shall submit a written request.

1. The party requesting the change shall submit a written request that identifies the contract change(s). All Change Orders must be documented, clearly stating any change to the scope of work, deliverables, project schedule or contract value.
2. A decision will be made to determine whether the additional equipment or modification of the timeline or services will be required to implement the request. Motorola and Hennepin County may choose to negotiate the requested change depending on the nature of the request.
3. Approval for any additional expenditures or use of additional Motorola resources will be obtained by Hennepin County prior to the commencement of any additional work or ordering of equipment as a result of the request.
4. All change orders will require appropriate authorization before the change is implemented.
5. All change orders must be communicated to the people or organizations impacted by the change.
6. Motorola will proceed with all due diligence to incorporate the approved change into the contract and implement the requested changes.

SAMPLE OF CHANGE ORDER FORM

HENNEPIN COUNTY:_____ Contract No:_____

Attn:_____ Change Order No:_____

Address:_____ Date:_____

_____

_____

In accordance with the terms and conditions of the Agreement between Hennepin County and Motorola dated _____, 20____, the following changes are approved:

I. Change Description: _____

_____

_____

II. Contract Price Adjustments:

Original Contract Value: $_____

Previous Change Order #1 through _____ Value: $_____

This Change Order #_____ Value: $_____

New Contract Value: $_____

III. Completion Date Adjustments:

Original Completion Date: _____

Previous Change Order #1 through _____ Days: _____

This Change Order #_____ Days: _____ _____

New Completion Date: _____

Except as amended above, all other terms and conditions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the said parties have caused this Agreement to be executed as of the last day and year signed below.

Hennepin County	Motorola, Inc.
By: _____	By: _____
Title: _____	Title: _____
Date: _____	Date: _____

9. DESCRIPTION OF PROJECT TIMELINE TASKS

PHASE I PROJECT ACTIVITIES COMMENCE

Task 1: **Hennepin County 700 MHz High Performance Data Network**

Task 2: **Contract Execution**
Hennepin County and Motorola, Inc. sign a formal contract.

Task 3: **Detailed Design Review (DDR) Begins**
Motorola's project team works with Hennepin County to establish the final design of the High Performance Data system.

Task 4: **Detailed Design Document (DDD) reviewed by Hennepin County**
Motorola completes all Detailed Design Review tasks and submits the Detailed Design Document (DDD) to Hennepin County for review and approval.

Task 5: **Hennepin County Accepts the Detailed Design Document**
Hennepin County approves the DDD

Task 6: **Motorola Initiates Order Processing**
Motorola processes all equipment orders to its manufacturing plants and its suppliers.

Task 7: **Motorola Issues Orders to Subcontractors**
Motorola meets with its subcontractors to define their work schedules and responsibilities with the DDD Implementation Timeline

Task 8: **Hennepin County Begins Site Preparations**
Motorola's project Manager and engineer work with the Hennepin County Project Director to determine the site preparations, required at each location, which must be completed according the DDD Implementation Timeline, prior to equipment delivery and installation.

Task 9: **Motorola Equipment Buildup, Manufacture and Factory Staging**
Motorola will commence manufacturing and acquiring the different pieces of equipment for building the Hennepin County High Performance Data system. After all the 700 MHz equipment is assembled; Motorola will stage and test the High Performance Data system at its CCSi facility in Schaumburg, Illinois. When the Factory Acceptance tests are successfully completed, CCSi personnel will package the equipment to meet site delivery requirements and move it to the loading dock.

Task 10: Motorola Delivers All Equipment to Minnesota

Motorola will ship Hennepin County subsystem equipment from the CCSi loading dock in Schaumburg, Illinois to its local warehouse facility, owned by the Beltmann Group, Inc., in Roseville, Minnesota.

Task 11: Field Inventory and Damage Checks

Motorola's Project Manager will be at the Beltmann Group warehouse to inspect incoming equipment shipments for damage, inventory the shipments against the CCSi listing to ensure everything has shipped complete, and to ensure that each site's equipment is safely stored. The Hennepin County Project Director will have the opportunity to visit the warehouse and review the equipment list with Motorola's Project Manager to verify receipt of the equipment.

PHASE I PROJECT ACTIVITIES ARE COMPLETED

PHASE II PROJECT ACTIVITIES COMMENCE

Task 12: Motorola Verifies Hennepin County Site Readiness Prior to Deliveries

Motorola's Project Manager will visit the Hennepin County sites to verify that site work is completed and that equipment can be delivered and installed. A site delivery schedule will be provided to the Hennepin County Project Director.

Task 13: Motorola Installs The Hennepin County High Performance Data System

Motorola and subcontractors install all 700 MHz data equipment and antennas and transmission lines. Installation will be done on a site-by-site basis, at the locations specified in the final system design, according to the Implementation Timeline dates.

Task 14: Hennepin County Accepts Site Equipment Installations

After completing the equipment installations at a particular site, Motorola and Hennepin County Project Director will visit the site to inspect the installation and to ensure that it is proper and in accordance with the requirements of the Contract. If there are items that must be corrected, a punch list of Major and Minor items will be generated by Motorola. Major punch list items must be resolved prior to the start of coverage testing.

Task 15: Hennepin County and Motorola Conduct Coverage Testing

After all site equipment has been installed and optimized Motorola will commence a Coverage Test Plan (CTP) to demonstrate proper system operation. During coverage testing Motorola may continue to complete Minor punch list items that do not affect the coverage testing.

Task 16: Motorola Will Provide Hennepin County With Coverage Maps
Coverage Test results will be provided to the Hennepin County before Final Acceptance will occur.

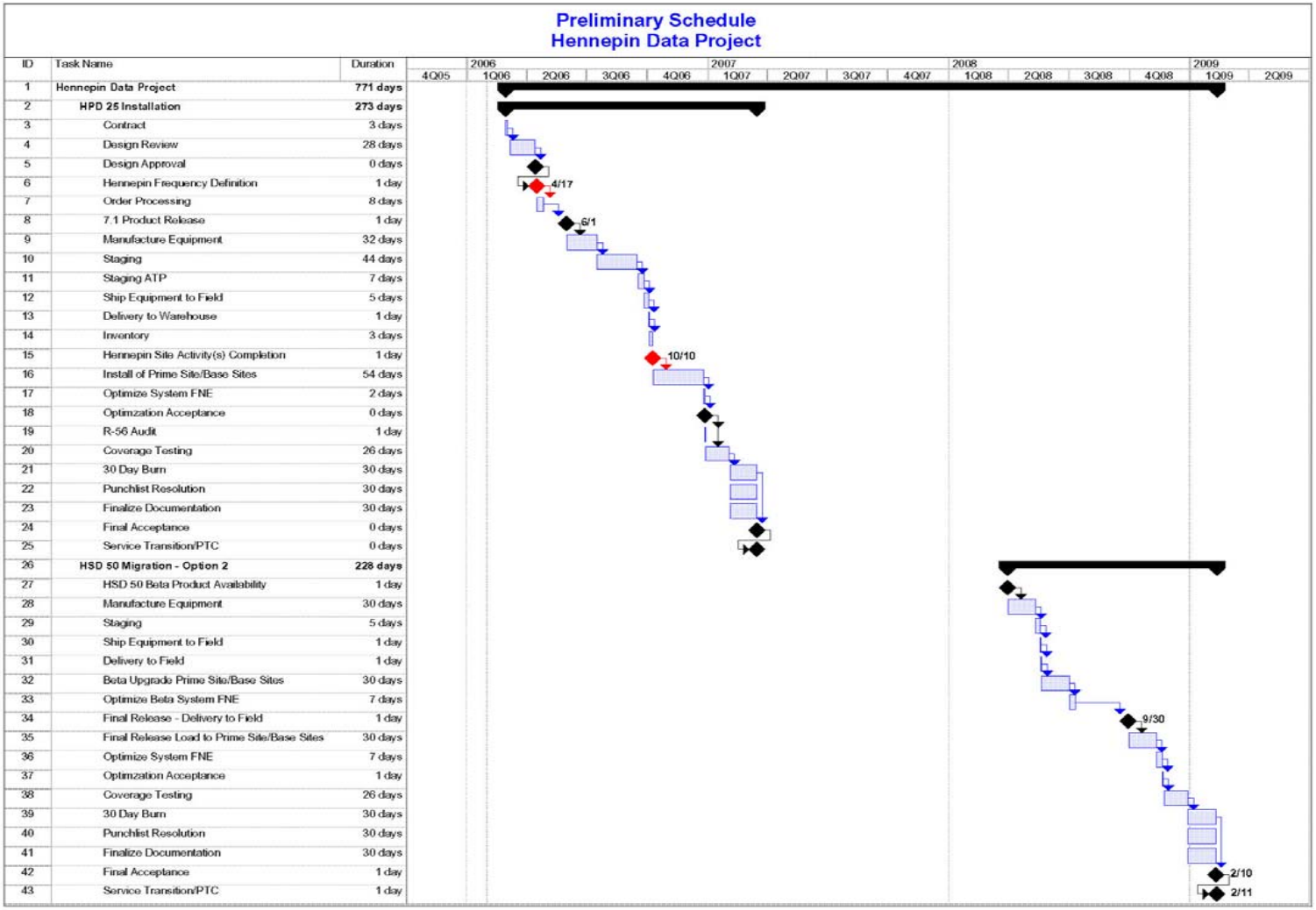
Task 17: Hennepin County Issues Final Acceptance
After the delivery of all contracted deliverables, Final Acceptance will occur. Hennepin County and Motorola will execute a Certificate of Final Acceptance. At this time the project is complete.

PHASE II PROJECT ACTIVITIES ARE COMPLETED

PHASE III PROJECT ACTIVITIES

Activities in phase III, migration to HSD 50 will duplicate content of Phases I and II as required. Motorola recommends detailed coordination of this phase during the Detailed Design Review. A preliminary view and recommendation of tasks associated with this phase is captured in the preliminary implementation schedule contained in this SOW.

PRELIMINARY IMPLEMENTATION SCHEDULE



ID	Task Name	Duration
1	Hennepin Data Project	771 days
2	HPD 25 Installation	273 days
3	Contract	3 days
4	Design Review	28 days
5	Design Approval	0 days
6	Hennepin Frequency Definition	1 day
7	Order Processing	8 days
8	7.1 Product Release	1 day
9	Manufacture Equipment	32 days
10	Staging	44 days
11	Staging ATP	7 days
12	Ship Equipment to Field	5 days
13	Delivery to Warehouse	1 day
14	Inventory	3 days
15	Hennepin Site Activity(s) Completion	1 day
16	Install of Prime Site/Base Sites	54 days
17	Optimize System FNE	2 days
18	Optimization Acceptance	0 days
19	R-56 Audit	1 day
20	Coverage Testing	26 days
21	30 Day Burn	30 days
22	Punchlist Resolution	30 days
23	Finalize Documentation	30 days
24	Final Acceptance	0 days
25	Service Transition/PTC	0 days
26	HSD 50 Migration - Option 2	228 days
27	HSD 50 Beta Product Availability	1 day
28	Manufacture Equipment	30 days
29	Staging	5 days
30	Ship Equipment to Field	1 day
31	Delivery to Field	1 day
32	Beta Upgrade Prime Site/Base Sites	30 days
33	Optimize Beta System FNE	7 days
34	Final Release - Delivery to Field	1 day
35	Final Release Load to Prime Site/Base Sites	30 days
36	Optimize System FNE	7 days
37	Optimization Acceptance	1 day
38	Coverage Testing	26 days
39	30 Day Burn	30 days
40	Punchlist Resolution	30 days
41	Finalize Documentation	30 days
42	Final Acceptance	1 day
43	Service Transition/PTC	1 day

AGSBNI

FCC 601
Main Form

FCC Application for Wireless Telecommunications Bureau Radio Service Authorization

Approved by OMB
3060 - 0798
See instructions for public burden estimate

1) Radio Service Code:	1a) Existing Radio Service Code:
SG	

Application Purpose (Select only one) (NE)

2) **NE** - New **RO** - Renewal Only **CO** - Consolidate Call Signs **NT** - Required Notifications
MD - Modification **RM** - Renewal/Modification **WD** - Withdrawal of Application **EX** - Requests for Extension of Time
AM - Amendment **CA** - Cancellation of License **DU** - Duplicate License **AU** - Administrative Update

3a) If this request is for a Developmental License, Demonstration License, or a Special Temporary Authorization (STA), enter the code and attach the required exhibit as described in the instructions. Otherwise enter 'N' (Not Applicable).	(N)D M S N/A
3b) If this request is for Special Temporary Authority due to an emergency situation, enter 'Y'; otherwise enter 'N'. Refer to Rule 1.915 for an explanation of situations considered to be an emergency.	(N)Yes No
4) If this request is for an Amendment or Withdrawal, enter the file number of the pending application currently on file with the FCC.	File Number
5) If this request is for a Modification, Renewal Only, Renewal/Modification, Cancellation of License, Consolidate Call Signs, Duplicate License, or Administrative Update, enter the call sign of the existing FCC license.	Call Sign
6) If this request is for a New, Amendment, Renewal Only, or Renewal/Modification, enter the requested authorization expiration date (this item is optional).	MM DD
7) Is this request "major" as defined in §1.929 of the Commission's rules when read in conjunction with the applicable radio service rules found in Parts 22 and 90 of the Commission's rules? (NOTE: This question only applies to certain site-specific applications. See the instructions for applicability and full text of §1.929).	(Y)Yes No
8a) Does this filing request a Waiver of the Commission's rules? If 'Yes', attach an exhibit providing rule numbers and explaining circumstances.	(Y)Yes No
8b) If attaching a waiver request to this filing, enter the number of rule sections involved.	0
8c) Are the frequencies or parameters requested in this filing covered by grandfathered privileges, previously approved by waiver, or functionally integrated with an existing station?	(N)Yes No
9) **Are attachments being filed with this application?**	(Y)Yes No

Applicant Information

10) FCC Registration Number (FRN): 0014672810

11) Applicant/Licensee is a(n): (G) Individual Unincorporated Association Trust Government Entity Joint Venture Corporation Limited Liability Corporation Partnership Consortium

12) First Name (if individual):	MI:	Last Name:	Suffix:

13) Entity Name (if other than individual): METROPOLITAN EMERGENCY SERVICES BOARD

14) Name of Real Party in Interest of Applicant (If different from applicant):	15) Taxpayer Identification Number of Real Party in Interest:

Applicant Information (continued)

16) Attention To: REGIONAL RADIO SERVICES COORDINATOR				
17) P.O. Box:	And /Or	18) Street Address: 2099 UNIVERSITY AVE W		
19) City: SAINT PAUL			20) State: MN	21) Zip: 55104-
22) Telephone Number: (651) 643-8394		23) FAX: (651) 603-0101		
24) E-Mail Address: jrohret@mn-mesb.org				

Contact Information (If different from the applicant)

25) First Name:	MI:	Last Name:	Suffix:
26) Entity Name:			
27) P.O. Box:	And /Or	28) Street Address:	
29) City:	30) State:	31) Zip: -	
32) Telephone Number: ( ) -	33) FAX: ( ) -		
34) E-Mail Address:			

Regulatory Status

35) This filing is for authorization to provide or use the following type(s) of radio service offering (enter all that apply):

( )Common Carrier ( )Non-Common Carrier (P)Private, internal communications ( )Broadcast Services ( )Band Manager

Type of Radio Service

36) This filing is for authorization to provide the following type(s) of radio service (enter all that apply):

(F)Fixed (M)Mobile ( )Radiolocation ( )Satellite (sound) ( )Broadcast Services

37) Interconnected Service? (Y)Yes No

Fee Status

38) Is the applicant exempt from FCC application fees? (Y)Yes No

39) Is the applicant exempt from FCC regulatory fees? (Y)Yes No

Alien Ownership Questions (If any answer is 'Yes', attach exhibit explaining circumstances.)

40) Is the applicant a foreign government or the representative of any foreign government?	(N)Yes No
41) Is the applicant an alien or the representative of an alien?	(N)Yes No
42) Is the applicant a corporation organized under the laws of any foreign government?	(N)Yes No
43) Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	(N)Yes No
44) Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country?	(N)Yes No

Basic Qualification Questions (If any answer is 'Yes', attach exhibit explaining circumstances.)

45) Has the applicant or any party to this application or amendment had any FCC station authorization, license, or construction permit revoked or had any application for an initial, modification or renewal of FCC station authorization, license, construction permit denied by the Commission?	(N)Yes No
46) Has the applicant or any party to this application or amendment, or any party directly or indirectly controlling the applicant, ever been convicted of a felony by any state or federal court?	(N)Yes No
47) Has any court finally adjudged the applicant or any party directly or indirectly controlling the applicant guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement, or any other means or unfair methods of competition?	(N)Yes No
48) Is the applicant or any party directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items?	(N)Yes No

Aeronautical Advisory Station (Unicom) Certification

49) (Y) I certify that the station will be located on property of the airport to be served, and, in cases where the airport does not have a control tower, RCO, or FAA flight service station, that I have notified the owner of the airport and all aviation service organizations located at the airport within ten days prior to application.

50) Race, Ethnicity, and Gender of Applicant/Licensee (Optional):

Race:	American Indian or Alaska Native:	Asian:	Black or African-American:	Native Hawaiian or Other Pacific Islander:	White:
Ethnicity:	Hispanic or Latino:	Not Hispanic or Latino:			
Gender:	Female:	Male:			

General Certification Statements

1)	The applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application.
2)	The applicant certifies that grant of this application would not cause the applicant to be in violation of any pertinent cross-ownership, attribution, or spectrum cap rule.* *If the applicant has sought a waiver of any such rule in connection with this application, it may make this certification subject to the outcome of the waiver request.
3)	The applicant certifies that all statements made in this application and in the exhibits, attachments, or documents incorporated by reference are material, are part of this application, and are true, complete, correct, and made in good faith.
4)	The applicant certifies that neither the applicant nor any other party to the application is subject to a denial of Federal benefits pursuant to §5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862, because of a conviction for possession or distribution of a controlled substance. This certification does not apply to applications filed in services exempted under §1.2002(c) of the rules, 47 CFR § 1.2002(c). See §1.2002(b) of the rules, 47 CFR § 1.2002(b), for the definition of "party to the application" as used in this certification.
5)	The applicant certifies that it either (1) has a current Form 602 on file with the Commission, (2) is filing an updated Form 602 simultaneously with this application, or (3) is not required to file Form 602 under the Commission's rules.
6)	The applicant certifies that the facilities, operations, and transmitters for which this authorization is hereby requested are either: (1) categorically excluded from routine environmental evaluation for RF exposure as set forth in 47 C.F.R. 1.1307(b); or, (2) have been found not to cause human exposure to levels of radiofrequency radiation in excess of the limits specified in 47 C.F.R. 1.1310 and 2.1093; or, (3) are the subject of one or more Environmental Assessments filed with the Commission.

Signature

51) Typed or Printed Name of Party Authorized to Sign

First Name:	MI:	Last Name:	Suffix:
NANCY		POLLOCK	MS

52) Title: EXECUTIVE DIRECTOR

Signature:	53) Date:
Nancy A Pollock	3/7/06

FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID.

Upon grant of this license application, the licensee may be subject to certain construction or coverage requirements. Failure to meet the construction or coverage requirements will result in termination of the license. Consult appropriate FCC regulations to determine the construction or coverage requirements that apply to the type of license requested in this application.

WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, §1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, §312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, §503).

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 1	
3) Location Description: FX .	4) Area of Operation Code:	5) Location Name: ANOKA CTY GOV CTR
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): N/A		
7) Latitude (DD-MM-SS.S): 45 - 11 - 57.9 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 23 - 12.8 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description: 2100 3RD AVE		
10) City: ANOKA	11) State: MN	12) County/Borough/Parish: ANOKA
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 267.0	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 35.0	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 42.0
16) Support Structure Type: B		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ____Hand Held ____Mobile ____Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del		2) Location Number: 2
3) Location Description: FX ,	4) Area of Operation Code:	5) Location Name: GOLDEN VALLEY
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): 1023053		
7) Latitude (DD-MM-SS.S): 44 - 59 - 56.0 NAD83 (N) N or S		8) Longitude (DDD-MM-SS.S): 093 - 23 - 53.0 NAD83 (W) E or W
9) Street Address, Name of Landing Area, or Other Location Description: 9300 NAPER STREET		
10) City: GOLDEN VALLEY	11) State: MN	12) County/Borough/Parish: HENNEPIN
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 286.8	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 122.0	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 128.0
16) Support Structure Type: TOWER		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ____Hand Held ____Mobile ____Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 3	
3) Location Description: FX .	4) Area of Operation Code:	5) Location Name: MEDINA
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): 1030807		
7) Latitude (DD-MM-SS.S): 45 - 03 - 06.0 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 34 - 14.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description: ARROWHEAD RD & HWY 55 - HC PUB WORKS		
10) City: MEDINA	11) State: MN	12) County/Borough/Parish: HENNEPIN
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 309.6	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 121.9	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 128.0
16) Support Structure Type: TOWER		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ___Hand Held ___Mobile ___Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 4	
3) Location Description: FX	4) Area of Operation Code:	5) Location Name: B108 ANOKA
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): 1242341		
7) Latitude (DD-MM-SS.S): 45 - 20 - 19.9 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 23 - 27.5 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description: 20167 ST FRANCIS BLVD NE		
10) City: ANOKA	11) State: MN	12) County/Borough/Parish: ANOKA
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 279.2	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 278.3	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 345.0
16) Support Structure Type: TOWER		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ____Hand Held ____Mobile ____Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 5	
3) Location Description: FX ,	4) Area of Operation Code:	5) Location Name: HASTINGS VET HOME
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): N/A		
7) Latitude (DD-MM-SS.S): 44 - 43 - 36.9 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 092 - 50 - 07.7 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description: 1200 E 18TH ST		
10) City: HASTINGS	11) State: MN	12) County/Borough/Parish: DAKOTA
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 258.0	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 46.0	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 52.0
16) Support Structure Type: TOWER		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ____Hand Held ____Mobile ____Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del		2) Location Number: 6
3) Location Description: FX ,	4) Area of Operation Code:	5) Location Name: EMPIRE TOWER
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): 1249071		
7) Latitude (DD-MM-SS.S): 44 - 42 - 54.1 NAD83 (N) N or S		8) Longitude (DDD-MM-SS.S): 093 - 07 - 31.8 NAD83 (W) E or W
9) Street Address, Name of Landing Area, or Other Location Description: 2800 CTY RD 46		
10) City: ROSEMOUNT	11) State: MN	12) County/Borough/Parish: DAKOTA
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 289.6	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 91.4	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 97.5
16) Support Structure Type: TOWER		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): Use for rectangle only (Northwest corner) - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): Use for rectangle only (Northwest corner) - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ____Hand Held ____Mobile ____Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 7	
3) Location Description: 6.1 .	4) Area of Operation Code: P	5) Location Name:
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): N/A		
7) Latitude (DD-MM-SS.S): 44 - 58 - 07.0 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 12 - 27.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description:		
10) City:	11) State:	12) County/Borough/Parish:
13) Elevation of Site AMSL (meters) ('a' in antenna structure example):	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example):	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example):
16) Support Structure Type:		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km): 113.0	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S	22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W		

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ____Hand Held ____Mobile ____Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 8	
3) Location Description: MO ,	4) Area of Operation Code: P	5) Location Name:
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): N/A		
7) Latitude (DD-MM-SS.S): 44 - 58 - 07.0 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 12 - 27.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description:		
10) City:	11) State:	12) County/Borough/Parish:
13) Elevation of Site AMSL (meters) ('a' in antenna structure example):	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example):	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example):
16) Support Structure Type:		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km): 113.0	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ____Hand Held 1000 Mobile ____Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule H

Technical Data Schedule for the Private Land Mobile and Land Mobile Broadcast Auxiliary Radio Services (Parts 90 and 74)

Approved by OMB
3060 - 0798
See 601 Main Form instructions
for public burden estimate

Eligibility

1) Rule Section:	2) Describe Activity: DATA COMMUNICATIONS FOR POLICE, FIRE AND LOCAL GOVERNMENT
90.523(a)	

Frequency Coordinator Information (if not self-coordinated)

3) Frequency Coordination Number	4) Name of Frequency Coordinator	5) Telephone Number	6) Coordination Date
		( ) -	

7) Has this application been successfully coordinated? ( )Yes/No

Extended Implementation (Slow Growth)

8) Are you requesting a new or modified extended implementation plan? (N)Yes/No
If 'Yes', attach an exhibit with a justification and a proposed station construction schedule.

Associated Call Signs (Attach additional sheets if required)

9)				

Broadcast Auxiliary Only

If there is an associated Parent Station, complete items 10-12.	10) Facility Id of Parent Station:	11) Radio Service of Parent Station:	12) City and State of Parent Station Principal Community:

13) If there is no associated parent station, this applicant is a: ( )
Broadcast Network Entity Television Cable Operator Motion Picture Producer Television Producer

14) State of Primary Operation:

Control Point(s) (Other than at the transmitter) (Attach additional sheets if required)

15) Action A/M/D	16) Control Point Number	17) Location Street Address, City or Town, County/Borough/Parish, State	18) Telephone Number

Antenna Information

19) Action ( ) A/M/D	20) Location Number	21) Antenna Number	22) AAT (meters)	23) Antenna Ht. (meters)	24) Azimuth (degrees)	25) Beamwidth (degrees)	26) Polarization	27) Gain (dB)
A	1	1	37.1	42.0			vert	10.0
A	2	1	137.8	128.0			vert	10.0
A	3	1	142.5	128.0			vert	10.0
A	4	1	73.6	75.0			vert	10.0
A	5	1	41.5	52.0			vert	10.0
A	6	1	105.6	97.5			vert	10.0
A	7	1						
A	8	1						

Frequency Information

28) Action ( ) A/M/D	29) Location Number	30) Antenna Number	31) Frequency (MHz) Existing (if mod)	31) Frequency (MHz) New	32) Station Class	33) No. of Units	34) No. of Paging Receivers	35) Output Power (watts)	36) ERP (watts)	37) Emission Designators
A	1	1		769.27500000	FB	1		40.000	89.000	17K7D7W
										43K6D7W
A	2	1		769.37500000	FB	1		40.000	41.000	17K7D7W
										43K6D7W
A	3	1		770.62500000	FB	1		40.000	41.000	17K7D7W
										43K6D7W
A	4	1		768.42500000	FB	1		40.000	55.000	17K7D7W
										43K6D7W
A	5	1		768.82500000	FB	1		40.000	61.000	17K7D7W
										43K6D7W
A	6	1		768.37500000	FB	1		40.000	55.000	17K7D7W
										43K6D7W
A	7	1		798.37500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		798.42500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		798.82500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		799.27500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		799.37500000	FX1	90		15.000	30.000	17K7D7W

Frequency Information

28) Action ( ) A/M/D	29) Location Number	30) Antenna Number	31) Frequency (MHz)		32) Station Class	33) No. of Units	34) No. of Paging Receivers	35) Output Power (watts)	36) ERP (watts)	37) Emission Designators
			Existing (if mod)	New						43K6D7W
A	7	1	Existing (if mod)	New 800.62500000	FX1	90		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	8	1	Existing (if mod)	New 798.37500000	MO	1000		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	8	1	Existing (if mod)	New 798.42500000	MO	1000		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	8	1	Existing (if mod)	New 798.82500000	MO	1000		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	8	1	Existing (if mod)	New 799.27500000	MO	1000		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	8	1	Existing (if mod)	New 799.37500000	MO	1000		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	8	1	Existing (if mod)	New 800.62500000	MO	1000		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						

MFSB # 2

FCC 601
Main Form

FCC Application for Wireless Telecommunications Bureau Radio Service Authorization

Approved by OMB
3060 - 0798
See instructions for public burden estimate

1) Radio Service Code:	1a) Existing Radio Service Code:
SG	

Application Purpose (Select only one) (NE)

2) **NE** - New **RO** - Renewal Only **CO** - Consolidate Call Signs **NT** - Required Notifications
MD - Modification **RM** - Renewal/Modification **WD** - Withdrawal of Application **EX** - Requests for Extension of Time
AM - Amendment **CA** - Cancellation of License **DU** - Duplicate License **AU** - Administrative Update

3a) If this request is for a Developmental License, Demonstration License, or a Special Temporary Authorization (STA), enter the code and attach the required exhibit as described in the instructions. Otherwise enter 'N' (Not Applicable).	(N)D M S N/A
3b) If this request is for Special Temporary Authority due to an emergency situation, enter 'Y'; otherwise enter 'N'. Refer to Rule 1.915 for an explanation of situations considered to be an emergency.	(N)Yes No
4) If this request is for an Amendment or Withdrawal, enter the file number of the pending application currently on file with the FCC.	File Number
5) If this request is for a Modification, Renewal Only, Renewal/Modification, Cancellation of License, Consolidate Call Signs, Duplicate License, or Administrative Update, enter the call sign of the existing FCC license.	Call Sign
6) If this request is for a New, Amendment, Renewal Only, or Renewal/Modification, enter the requested authorization expiration date (this item is optional).	MM DD
7) Is this request "major" as defined in §1.929 of the Commission's rules when read in conjunction with the applicable radio service rules found in Parts 22 and 90 of the Commission's rules? (NOTE: This question only applies to certain site-specific applications. See the instructions for applicability and full text of §1.929).	(Y)Yes No
8a) Does this filing request a Waiver of the Commission's rules? If 'Yes', attach an exhibit providing rule numbers and explaining circumstances.	(Y)Yes No
8b) If attaching a waiver request to this filing, enter the number of rule sections involved.	0
8c) Are the frequencies or parameters requested in this filing covered by grandfathered privileges, previously approved by waiver, or functionally integrated with an existing station?	(N)Yes No
9) **Are attachments being filed with this application?**	(Y)Yes No

Applicant Information

10) FCC Registration Number (FRN): 0014672810

11) Applicant/Licensee is a(n): (G) Individual Unincorporated Association Trust Government Entity Joint Venture
Corporation Limited Liability Corporation Partnership Consortium

12) First Name (if individual):	MI:	Last Name:	Suffix:

13) Entity Name (if other than individual): METROPOLITAN EMERGENCY SERVICES BOARD

14) Name of Real Party in Interest of Applicant (If different from applicant):	15) Taxpayer Identification Number of Real Party in Interest:

Applicant Information (continued)

16) Attention To:		
REGIONAL RADIO SERVICES COODRINATOR		
17) P.O. Box:	And /Or	18) Street Address: 2099 UNIVERSITY AVE W, SUITE 201
19) City: SAINT PAUL	20) State: MN	21) Zip: 55104-
22) Telephone Number: (651) 643-8394	23) FAX: (651) 603-0101	
24) E-Mail Address: jrohret@mn-mesb.org		

Contact Information (If different from the applicant)

25) First Name:	MI:	Last Name:	Suffix:
26) Entity Name:			
27) P.O. Box:	And /Or	28) Street Address:	
29) City:	30) State:	31) Zip: -	
32) Telephone Number: ( ) -	33) FAX: ( ) -		
34) E-Mail Address:			

Regulatory Status

35) This filing is for authorization to provide or use the following type(s) of radio service offering (enter all that apply):

( )Common Carrier ( )Non-Common Carrier (P)Private, internal communications ( )Broadcast Services ( )Band Manager

Type of Radio Service

36) This filing is for authorization to provide the following type(s) of radio service (enter all that apply):

(F)Fixed (M)Mobile ( )Radiolocation ( )Satellite (sound) ( )Broadcast Services

37) Interconnected Service? (Y)Yes No

Fee Status

38) Is the applicant exempt from FCC application fees? (Y)Yes No

39) Is the applicant exempt from FCC regulatory fees? (Y)Yes No

Alien Ownership Questions (If any answer is 'Yes', attach exhibit explaining circumstances.)

40) Is the applicant a foreign government or the representative of any foreign government?	(N)Yes No
41) Is the applicant an alien or the representative of an alien?	(N)Yes No
42) Is the applicant a corporation organized under the laws of any foreign government?	(N)Yes No
43) Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	(N)Yes No
44) Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country?	(N)Yes No

Basic Qualification Questions (If any answer is 'Yes', attach exhibit explaining circumstances.)

45) Has the applicant or any party to this application or amendment had any FCC station authorization, license, or construction permit revoked or had any application for an initial, modification or renewal of FCC station authorization, license, construction permit denied by the Commission?	(N)Yes No
46) Has the applicant or any party to this application or amendment, or any party directly or indirectly controlling the applicant, ever been convicted of a felony by any state or federal court?	(N)Yes No
47) Has any court finally adjudged the applicant or any party directly or indirectly controlling the applicant guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement, or any other means or unfair methods of competition?	(N)Yes No
48) Is the applicant or any party directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items?	(N)Yes No

Aeronautical Advisory Station (Unicom) Certification

49) (Y) I certify that the station will be located on property of the airport to be served, and, in cases where the airport does not have a control tower, RCO, or FAA flight service station, that I have notified the owner of the airport and all aviation service organizations located at the airport within ten days prior to application.

50) Race, Ethnicity, and Gender of Applicant/Licensee (Optional):

Race:	American Indian or Alaska Native:	Asian:	Black or African-American:	Native Hawaiian or Other Pacific Islander:	White:
Ethnicity:	Hispanic or Latino:	Not Hispanic or Latino:			
Gender:	Female:	Male:			

General Certification Statements

1)	The applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application.
2)	The applicant certifies that grant of this application would not cause the applicant to be in violation of any pertinent cross-ownership, attribution, or spectrum cap rule.* *If the applicant has sought a waiver of any such rule in connection with this application, it may make this certification subject to the outcome of the waiver request.
3)	The applicant certifies that all statements made in this application and in the exhibits, attachments, or documents incorporated by reference are material, are part of this application, and are true, complete, correct, and made in good faith.
4)	The applicant certifies that neither the applicant nor any other party to the application is subject to a denial of Federal benefits pursuant to §5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862, because of a conviction for possession or distribution of a controlled substance. This certification does not apply to applications filed in services exempted under §1.2002(c) of the rules, 47 CFR § 1.2002(c). See §1.2002(b) of the rules, 47 CFR § 1.2002(b), for the definition of "party to the application" as used in this certification.
5)	The applicant certifies that it either (1) has a current Form 602 on file with the Commission, (2) is filing an updated Form 602 simultaneously with this application, or (3) is not required to file Form 602 under the Commission's rules.
6)	The applicant certifies that the facilities, operations, and transmitters for which this authorization is hereby requested are either: (1) categorically excluded from routine environmental evaluation for RF exposure as set forth in 47 C.F.R. 1.1307(b); or, (2) have been found not to cause human exposure to levels of radiofrequency radiation in excess of the limits specified in 47 C.F.R. 1.1310 and 2.1093; or, (3) are the subject of one or more Environmental Assessments filed with the Commission.

Signature

51) Typed or Printed Name of Party Authorized to Sign

First Name:	MI:	Last Name:	Suffix:
NANCY		POLLOCK	MS

52) Title: EXECUTIVE DIRECTOR

Signature:	53) Date:
Nancy A Pollock	3/7/06

FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID.

Upon grant of this license application, the licensee may be subject to certain construction or coverage requirements. Failure to meet the construction or coverage requirements will result in termination of the license. Consult appropriate FCC regulations to determine the construction or coverage requirements that apply to the type of license requested in this application.

WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, §1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, §312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, §503).

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del		2) Location Number: 1	
3) Location Description: FX ,	4) Area of Operation Code:	5) Location Name: KING STACK	
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): 1024930			
7) Latitude (DD-MM-SS.S): 45 - 01 - 48.0 NAD83 (N) N or S		8) Longitude (DDD-MM-SS.S): 092 - 46 - 44.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description: 1103 KING PLANT ROAD			
10) City: BAYPORT	11) State: MN	12) County/Borough/Parish: WASHINGTON	
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 210.6	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 239.2	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 239.2	
16) Support Structure Type: STACK			
17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): Use for rectangle only (Northwest corner) - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): Use for rectangle only (Northwest corner) - - NAD83 ( ) E or W	
23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No			
24) Description: (only for Area of Operation Code 'O')			
25) Number of Units: ___Hand Held ___Mobile ___Temporary Fixed ___Aircraft ___Itinerant			
26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311. (N) Yes No			
27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___			

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del		2) Location Number: 2
3) Location Description: FX .	4) Area of Operation Code:	5) Location Name: FOREST LAKE
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): 1239383		
7) Latitude (DD-MM-SS.S): 45 - 15 - 35.9 NAD83 (N) N or S		8) Longitude (DDD-MM-SS.S): 092 - 58 - 01.8 NAD83 (W) E or W
9) Street Address, Name of Landing Area, or Other Location Description: 6275 210TH ST N		
10) City: FOREST LAKE	11) State: MN	12) County/Borough/Parish: WASHINGTON
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 282.3	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 53.6	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 59.7
16) Support Structure Type: TANK		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ____Hand Held ____Mobile ____Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 3	
3) Location Description: FX .	4) Area of Operation Code:	5) Location Name: NORTH BRANCH
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): 1244078		
7) Latitude (DD-MM-SS.S): 45 - 30 - 32.9 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 00 - 39.3 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description: 4841 ST CROIX TRAIL		
10) City: NORTH BRANCH	11) State: MN	12) County/Borough/Parish: CHISAGO
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 274.3	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 100.6	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 106.4
16) Support Structure Type: TOWER		
17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier: 20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S	22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	
23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No		
24) Description: (only for Area of Operation Code 'O')		
25) Number of Units: ___Hand Held ___Mobile ___Temporary Fixed ___Aircraft ___Itinerant		
26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311. (N) Yes No		
27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___		

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 4	
3) Location Description: FX .	4) Area of Operation Code:	5) Location Name: NORWOOD
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): 1062598		
7) Latitude (DD-MM-SS.S): 44 - 47 - 20.0 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 54 - 26.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description: 15125 118TH ST		
10) City: NORWOOD	11) State: MN	12) County/Borough/Parish: CARVER
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 311.0	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 76.0	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 84.0
16) Support Structure Type: TOWER		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ___Hand Held ___Mobile ___Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 5	
3) Location Description: FX ,	4) Area of Operation Code:	5) Location Name: RAMSEY CTY GOVT CTR
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): N/A		
7) Latitude (DD-MM-SS.S): 44 - 56 - 38.9 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 05 - 37.8 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description: 15 KELLOGG BOULEVARD WEST		
10) City: SAINT PAUL	11) State: MN	12) County/Borough/Parish: RAMSEY
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 242.0	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 75.0	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 81.0
16) Support Structure Type: B		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No
24) Description: (only for Area of Operation Code 'O')
25) Number of Units: ___Hand Held ___Mobile ___Temporary Fixed ___Aircraft ___Itinerant
26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311. (N) Yes No
27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del		2) Location Number: 6
3) Location Description: FX	4) Area of Operation Code:	5) Location Name: SHAKOPEE
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): 1011936		
7) Latitude (DD-MM-SS.S): 44 - 45 - 06.0 NAD83 (N) N or S		8) Longitude (DDD-MM-SS.S): 093 - 33 - 01.0 NAD83 (W) E or W
9) Street Address, Name of Landing Area, or Other Location Description: 13751 ZUMBRO AVE		
10) City: SHAKOPEE	11) State: MN	12) County/Borough/Parish: SCOTT
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 303.6	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 67.1	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 76.2
16) Support Structure Type: TOWER		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): Use for rectangle only (Northwest corner) - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): Use for rectangle only (Northwest corner) - - NAD83 ( ) E or W	
23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No			
24) Description: (only for Area of Operation Code 'O')			
25) Number of Units: ___Hand Held ___Mobile ___Temporary Fixed ___Aircraft ___Itinerant			
26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311. (N) Yes No			
27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___			

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 7	
3) Location Description: 6.1 .	4) Area of Operation Code: P	5) Location Name:
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): N/A		
7) Latitude (DD-MM-SS.S): 44 - 58 - 07.0 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 12 - 27.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description:		
10) City:	11) State:	12) County/Borough/Parish:
13) Elevation of Site AMSL (meters) ('a' in antenna structure example):	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example):	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example):
16) Support Structure Type:		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km): 113.0	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S	22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W		

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No
24) Description: (only for Area of Operation Code 'O')
25) Number of Units: ____Hand Held ____Mobile ____Temporary Fixed ___Aircraft ___Itinerant
26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311. (N) Yes No
27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 8	
3) Location Description: MO .	4) Area of Operation Code: P	5) Location Name:
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): N/A		
7) Latitude (DD-MM-SS.S): 44 - 58 - 07.0 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 12 - 27.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description:		
10) City:	11) State:	12) County/Borough/Parish:
13) Elevation of Site AMSL (meters) ('a' in antenna structure example):	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example):	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example):
16) Support Structure Type:		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km): 113.0	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S	22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W		

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ___Hand Held 1000 Mobile ___Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule H

Technical Data Schedule for the Private Land Mobile and Land Mobile Broadcast Auxiliary Radio Services (Parts 90 and 74)

Approved by OMB
3060 - 0798
See 601 Main Form instructions
for public burden estimate

Eligibility

1) Rule Section:	2) Describe Activity:
90.523(a)	DATA COMMUNICATIONS FOR POLICE, FIRE AND LOCAL GOVERNMENT

Frequency Coordinator Information (if not self-coordinated)

3) Frequency Coordination Number	4) Name of Frequency Coordinator	5) Telephone Number	6) Coordination Date
		( ) -	

7) Has this application been successfully coordinated? ( )Yes/No

Extended Implementation (Slow Growth)

8) Are you requesting a new or modified extended implementation plan? (N)Yes/No
If 'Yes', attach an exhibit with a justification and a proposed station construction schedule.

Associated Call Signs (Attach additional sheets if required)

9)				

Broadcast Auxiliary Only

If there is an associated Parent Station, complete items 10-12.	10) Facility Id of Parent Station:	11) Radio Service of Parent Station:	12) City and State of Parent Station Principal Community:

13) If there is no associated parent station, this applicant is a: ( )	14) State of Primary Operation:
Broadcast Network Entity Television Cable Operator Motion Picture Producer Television Producer	

Control Point(s) (Other than at the transmitter) (Attach additional sheets if required)

15) Action A/M/D	16) Control Point Number	17) Location Street Address, City or Town, County/Borough/Parish, State	18) Telephone Number

Antenna Information

19) Action ( ) A/M/D	20) Location Number	21) Antenna Number	22) AAT (meters)	23) Antenna Ht. (meters)	24) Azimuth (degrees)	25) Beamwidth (degrees)	26) Polarization	27) Gain (dB)
A	1	1	133.8	199.0			VERT	10.0
A	2	1	60.9	59.7			VERT	10.0
A	3	1	103.8	106.4			VERT	10.0
A	4	1	94.5	84.0			VERT	10.0
A	5	1	56.2	81.0			VERT	10.0
A	6	1	112.3	76.2			VERT	10.0
A	7	1						
A	8	1						

Frequency Information

28) Action ( ) A/M/D	29) Location Number	30) Antenna Number	31) Frequency (MHz) Existing (if mod)	31) Frequency (MHz) New	32) Station Class	33) No. of Units	34) No. of Paging Receivers	35) Output Power (watts)	36) ERP (watts)	37) Emission Designators
A	1	1		771.12500000	FB	1		40.000	27.000	17K7D7W
										43K6D7W
A	2	1		768.87500000	FB	1		40.000	68.000	17K7D7W
										43K6D7W
A	3	1		770.67500000	FB	1		40.000	53.000	17K7D7W
										43K6D7W
A	4	1		768.47500000	FB	1		40.000	56.000	17K7D7W
										43K6D7W
A	5	1		770.72500000	FB	1		40.000	85.000	17K7D7W
										43K6D7W
A	6	1		768.92500000	FB	1		40.000	61.000	17K7D7W
										43K6D7W
A	7	1		798.47500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		798.87500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		798.92500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		800.67500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		800.72500000	FX1	90		15.000	30.000	17K7D7W

Frequency Information

28) Action ( ) A/M/D	29) Location Number	30) Antenna Number	31) Frequency (MHz)		32) Station Class	33) No. of Units	34) No. of Paging Receivers	35) Output Power (watts)	36) ERP (watts)	37) Emission Designators
			Existing (if mod)	New						43K6D7W
A	7	1	Existing (if mod)	New 801.12500000	FX1	90		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	8	1	Existing (if mod)	New 798.47500000	MO	1000		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	8	1	Existing (if mod)	New 798.87500000	MO	1000		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	8	1	Existing (if mod)	New 798.92500000	MO	1000		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	8	1	Existing (if mod)	New 800.67500000	MO	1000		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	8	1	Existing (if mod)	New 800.72500000	MO	1000		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	8	1	Existing (if mod)	New 801.12500000	MO	1000		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						

ME5843

FCC 601
Main Form

FCC Application for Wireless Telecommunications Bureau Radio Service Authorization

Approved by OMB
3060 - 0798
See instructions for public burden estimate

1) Radio Service Code:	1a) Existing Radio Service Code:
SG	

Application Purpose (Select only one) (NE)

2) **NE** - New **RO** - Renewal Only **CO** - Consolidate Call Signs **NT** - Required Notifications
MD - Modification **RM** - Renewal/Modification **WD** - Withdrawal of Application **EX** - Requests for Extension of Time
AM - Amendment **CA** - Cancellation of License **DU** - Duplicate License **AU** - Administrative Update

3a) If this request is for a Developmental License, Demonstration License, or a Special Temporary Authorization (STA), enter the code and attach the required exhibit as described in the instructions. Otherwise enter 'N' (Not Applicable).	(N)D M S N/A
3b) If this request is for Special Temporary Authority due to an emergency situation, enter 'Y'; otherwise enter 'N'. Refer to Rule 1.915 for an explanation of situations considered to be an emergency.	(N)Yes No
4) If this request is for an Amendment or Withdrawal, enter the file number of the pending application currently on file with the FCC.	File Number
5) If this request is for a Modification, Renewal Only, Renewal/Modification, Cancellation of License, Consolidate Call Signs, Duplicate License, or Administrative Update, enter the call sign of the existing FCC license.	Call Sign
6) If this request is for a New, Amendment, Renewal Only, or Renewal/Modification, enter the requested authorization expiration date (this item is optional).	MM DD
7) Is this request "major" as defined in §1.929 of the Commission's rules when read in conjunction with the applicable radio service rules found in Parts 22 and 90 of the Commission's rules? (NOTE: This question only applies to certain site-specific applications. See the instructions for applicability and full text of §1.929).	(Y)Yes No
8a) Does this filing request a Waiver of the Commission's rules? If 'Yes', attach an exhibit providing rule numbers and explaining circumstances.	(Y)Yes No
8b) If attaching a waiver request to this filing, enter the number of rule sections involved.	0
8c) Are the frequencies or parameters requested in this filing covered by grandfathered privileges, previously approved by waiver, or functionally integrated with an existing station?	(N)Yes No
9) **Are attachments being filed with this application?**	(Y)Yes No

Applicant Information

10) FCC Registration Number (FRN): 0014672810

11) Applicant/Licensee is a(n): (G) Individual Unincorporated Association Trust Government Entity Joint Venture
Corporation Limited Liability Corporation Partnership Consortium

12) First Name (if individual):	MI:	Last Name:	Suffix:

13) Entity Name (if other than individual): METROPOLITAN EMERGENCY SERVICES BOARD

14) Name of Real Party in Interest of Applicant (If different from applicant):	15) Taxpayer Identification Number of Real Party in Interest:

Applicant Information (continued)

16) Attention To:		
REGIONAL RADIO SERVICES COORDINATOR		
17) P.O. Box:	And /Or	18) Street Address: 2099 UNIVERSITY AVE W
19) City: SAINT PAUL	20) State: MN	21) Zip: 55104-
22) Telephone Number: (651) 643-8394	23) FAX: (651) 603-0101	
24) E-Mail Address: jrohret@mn-mesb.org		

Contact Information (If different from the applicant)

25) First Name:	MI:	Last Name:	Suffix:
26) Entity Name:			
27) P.O. Box:	And /Or	28) Street Address:	
29) City:	30) State:	31) Zip: -	
32) Telephone Number: ( ) -	33) FAX: ( ) -		
34) E-Mail Address:			

Regulatory Status

35) This filing is for authorization to provide or use the following type(s) of radio service offering (enter all that apply):

( )Common Carrier ( )Non-Common Carrier (P)Private, internal communications ( )Broadcast Services ( )Band Manager

Type of Radio Service

36) This filing is for authorization to provide the following type(s) of radio service (enter all that apply):

(F)Fixed (M)Mobile ( )Radiolocation ( )Satellite (sound) ( )Broadcast Services

37) Interconnected Service? (Y)Yes No

Fee Status

38) Is the applicant exempt from FCC application fees? (Y)Yes No

39) Is the applicant exempt from FCC regulatory fees? (Y)Yes No

Alien Ownership Questions (If any answer is 'Yes', attach exhibit explaining circumstances.)

40) Is the applicant a foreign government or the representative of any foreign government?	(N)Yes No
41) Is the applicant an alien or the representative of an alien?	(N)Yes No
42) Is the applicant a corporation organized under the laws of any foreign government?	(N)Yes No
43) Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	(N)Yes No
44) Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country?	(N)Yes No

Basic Qualification Questions (If any answer is 'Yes', attach exhibit explaining circumstances.)

45) Has the applicant or any party to this application or amendment had any FCC station authorization, license, or construction permit revoked or had any application for an initial, modification or renewal of FCC station authorization, license, construction permit denied by the Commission?	(N)Yes No
46) Has the applicant or any party to this application or amendment, or any party directly or indirectly controlling the applicant, ever been convicted of a felony by any state or federal court?	(N)Yes No
47) Has any court finally adjudged the applicant or any party directly or indirectly controlling the applicant guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement, or any other means or unfair methods of competition?	(N)Yes No
48) Is the applicant or any party directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items?	(N)Yes No

Aeronautical Advisory Station (Unicom) Certification

49) (Y) I certify that the station will be located on property of the airport to be served, and, in cases where the airport does not have a control tower, RCO, or FAA flight service station, that I have notified the owner of the airport and all aviation service organizations located at the airport within ten days prior to application.

50) Race, Ethnicity, and Gender of Applicant/Licensee (Optional):

Race:	American Indian or Alaska Native:	Asian:	Black or African-American:	Native Hawaiian or Other Pacific Islander:	White:
Ethnicity:	Hispanic or Latino:	Not Hispanic or Latino:			
Gender:	Female:	Male:			

General Certification Statements

1)	The applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application.
2)	The applicant certifies that grant of this application would not cause the applicant to be in violation of any pertinent cross-ownership, attribution, or spectrum cap rule.* *If the applicant has sought a waiver of any such rule in connection with this application, it may make this certification subject to the outcome of the waiver request.
3)	The applicant certifies that all statements made in this application and in the exhibits, attachments, or documents incorporated by reference are material, are part of this application, and are true, complete, correct, and made in good faith.
4)	The applicant certifies that neither the applicant nor any other party to the application is subject to a denial of Federal benefits pursuant to §5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862, because of a conviction for possession or distribution of a controlled substance. This certification does not apply to applications filed in services exempted under §1.2002(c) of the rules, 47 CFR § 1.2002(c). See §1.2002(b) of the rules, 47 CFR § 1.2002(b), for the definition of "party to the application" as used in this certification.
5)	The applicant certifies that it either (1) has a current Form 602 on file with the Commission, (2) is filing an updated Form 602 simultaneously with this application, or (3) is not required to file Form 602 under the Commission's rules.
6)	The applicant certifies that the facilities, operations, and transmitters for which this authorization is hereby requested are either: (1) categorically excluded from routine environmental evaluation for RF exposure as set forth in 47 C.F.R. 1.1307(b); or, (2) have been found not to cause human exposure to levels of radiofrequency radiation in excess of the limits specified in 47 C.F.R. 1.1310 and 2.1093; or, (3) are the subject of one or more Environmental Assessments filed with the Commission.

Signature

51) Typed or Printed Name of Party Authorized to Sign

First Name:	MI:	Last Name:	Suffix:
NANCY		POLLOCK	MS

52) Title: EXECUTIVE DIRECTOR

Signature:	53) Date:
Nancy A Pollock	3/29/06

FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID.

Upon grant of this license application, the licensee may be subject to certain construction or coverage requirements. Failure to meet the construction or coverage requirements will result in termination of the license. Consult appropriate FCC regulations to determine the construction or coverage requirements that apply to the type of license requested in this application.

WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, §1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, §312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, §503).

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 1	
3) Location Description: FX ,	4) Area of Operation Code:	5) Location Name: WASH GOVT CTR
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): N/A		
7) Latitude (DD-MM-SS.S): 45 - 02 - 15.0 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 092 - 48 - 10.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description: 14900 61ST N		
10) City: STILLWATER	11) State: MN	12) County/Borough/Parish: WASHINGTON
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 269.0	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 26.0	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 33.5
16) Support Structure Type: BTWR		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): NAD83 ( ) N or S **Use for rectangle only (Northwest corner)** - -		22) Maximum Longitude (DDD-MM-SS.S): NAD83 ( ) E or W **Use for rectangle only (Northwest corner)** - -	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ____Hand Held ____Mobile ____Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 2	
3) Location Description: 6.1 .	4) Area of Operation Code: P	5) Location Name:
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): N/A		
7) Latitude (DD-MM-SS.S): 44 - 58 - 07.0 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 12 - 27.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description:		
10) City:	11) State:	12) County/Borough/Parish:
13) Elevation of Site AMSL (meters) ('a' in antenna structure example):	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example):	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example):
16) Support Structure Type:		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km): 113.0	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ____Hand Held ____Mobile ____Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 3	
3) Location Description: MO .	4) Area of Operation Code: P	5) Location Name:
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): N/A		
7) Latitude (DD-MM-SS.S): 44 - 58 - 07.0 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 12 - 27.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description:		
10) City:	11) State:	12) County/Borough/Parish:
13) Elevation of Site AMSL (meters) ('a' in antenna structure example):	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example):	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example):
16) Support Structure Type:		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km): 113.0	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S	22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W		
23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No			
24) Description: (only for Area of Operation Code 'O')			
25) Number of Units: ___Hand Held 1000 Mobile ___Temporary Fixed ___Aircraft ___Itinerant			
26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311. (N) Yes No			
27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___			

FCC 601
Schedule H

Technical Data Schedule for the Private Land Mobile and Land Mobile Broadcast Auxiliary Radio Services (Parts 90 and 74)

Approved by OMB
3060 - 0798
See 601 Main Form instructions
for public burden estimate

Eligibility

1) Rule Section:	2) Describe Activity:
90.523(a)	DATA COMMUNICATIONS FOR POLICE, FIRE AND LOCAL GOVERNMENT

Frequency Coordinator Information (if not self-coordinated)

3) Frequency Coordination Number	4) Name of Frequency Coordinator	5) Telephone Number	6) Coordination Date
		( ) -	

7) Has this application been successfully coordinated? ( )Yes/No

Extended Implementation (Slow Growth)

8) Are you requesting a new or modified extended implementation plan? (N)Yes/No
If 'Yes', attach an exhibit with a justification and a proposed station construction schedule.

Associated Call Signs (Attach additional sheets if required)

9)				

Broadcast Auxiliary Only

If there is an associated Parent Station, complete Items 10-12.	10) Facility Id of Parent Station:	11) Radio Service of Parent Station:	12) City and State of Parent Station Principal Community:

13) If there is no associated parent station, this applicant is a: ( )
Broadcast Network Entity Television Cable Operator Motion Picture Producer Television Producer

14) State of Primary Operation:

Control Point(s) (Other than at the transmitter) (Attach additional sheets if required)

15) Action A/M/D	16) Control Point Number	17) Location Street Address, City or Town, County/Borough/Parish, State	18) Telephone Number

Antenna Information

19) Action ( ) A/M/D	20) Location Number	21) Antenna Number	22) AAT (meters)	23) Antenna Ht. (meters)	24) Azimuth (degrees)	25) Beamwidth (degrees)	26) Polarization	27) Gain (dB)
A	1	1	23.3	33.5			VERT	10.0
A	2	1						
A	3	1						

Frequency Information

28) Action ( ) A/M/D	29) Location Number	30) Antenna Number	31) Frequency (MHz)		32) Station Class	33) No. of Units	34) No. of Paging Receivers	35) Output Power (watts)	36) ERP (watts)	37) Emission Designators
			Existing (if mod)	New						
A	1	1		771.12500000	FB	1		40.000	40.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	2	1	Existing (if mod)	New 801.12500000	FX1	90		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	3	1	Existing (if mod)	New 801.12500000	MO	1000		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						

Hennepin Apps.

FCC 601
Main Form

FCC Application for Wireless Telecommunications Bureau Radio Service Authorization

Approved by OMB
3060 - 0798
See instructions for public burden estimate

1) Radio Service Code:	1a) Existing Radio Service Code:
SG	

Application Purpose (Select only one) (NE)

2) **NE** - New **RO** - Renewal Only **CO** - Consolidate Call Signs **NT** - Required Notifications
MD - Modification **RM** - Renewal/Modification **WD** - Withdrawal of Application **EX** - Requests for Extension of Time
AM - Amendment **CA** - Cancellation of License **DU** - Duplicate License **AU** - Administrative Update

3a) If this request is for a Developmental License, Demonstration License, or a Special Temporary Authorization (STA), enter the code and attach the required exhibit as described in the instructions. Otherwise enter 'N' (Not Applicable).	(N)D M S N/A
3b) If this request is for Special Temporary Authority due to an emergency situation, enter 'Y'; otherwise enter 'N'. Refer to Rule 1.915 for an explanation of situations considered to be an emergency.	(N)Yes No
4) If this request is for an Amendment or Withdrawal, enter the file number of the pending application currently on file with the FCC.	File Number
5) If this request is for a Modification, Renewal Only, Renewal/Modification, Cancellation of License, Consolidate Call Signs, Duplicate License, or Administrative Update, enter the call sign of the existing FCC license.	Call Sign
6) If this request is for a New, Amendment, Renewal Only, or Renewal/Modification, enter the requested authorization expiration date (this item is optional).	MM DD
7) Is this request "major" as defined in §1.929 of the Commission's rules when read in conjunction with the applicable radio service rules found in Parts 22 and 90 of the Commission's rules? (NOTE: This question only applies to certain site-specific applications. See the instructions for applicability and full text of §1.929).	(Y)Yes No
8a) Does this filing request a Waiver of the Commission's rules? If 'Yes', attach an exhibit providing rule numbers and explaining circumstances.	(Y)Yes No
8b) If attaching a waiver request to this filing, enter the number of rule sections involved.	0
8c) Are the frequencies or parameters requested in this filing covered by grandfathered privileges, previously approved by waiver, or functionally integrated with an existing station?	(N)Yes No
9) **Are attachments being filed with this application?**	(Y)Yes No

Applicant Information

10) FCC Registration Number (FRN): 0002609295

11) Applicant/Licensee is a(n): (G) Individual Unincorporated Association Trust Government Entity Joint Venture
Corporation Limited Liability Corporation Partnership Consortium

12) First Name (if individual):	MI:	Last Name:	Suffix:

13) Entity Name (if other than individual): HENNEPIN, COUNTY OF

14) Name of Real Party in Interest of Applicant (If different from applicant):	15) Taxpayer Identification Number of Real Party in Interest:

Applicant Information (continued)

16) Attention To:				
TELECOMMUNICATIONS MANAGER				
17) P.O. Box:	And /Or	18) Street Address: 9300 NAPER ST		
19) City: GOLDEN VALLEY		20) State: MN	21) Zip: 55427-3728	
22) Telephone Number: (612) 596-1920		23) FAX: (763) 525-6243		
24) E-Mail Address:				

Contact Information (If different from the applicant)

25) First Name:	MI:	Last Name:	Suffix:
26) Entity Name:			
27) P.O. Box:	And /Or	28) Street Address:	
29) City:	30) State:	31) Zip: -	
32) Telephone Number: ( ) -		33) FAX: ( ) -	
34) E-Mail Address:			

Regulatory Status

35) This filing is for authorization to provide or use the following type(s) of radio service offering (enter all that apply):

( )Common Carrier ( )Non-Common Carrier (P)Private, internal communications ( )Broadcast Services ( )Band Manager

Type of Radio Service

36) This filing is for authorization to provide the following type(s) of radio service (enter all that apply):

(F)Fixed (M)Mobile ( )Radiolocation ( )Satellite (sound) ( )Broadcast Services

37) Interconnected Service? (Y)Yes No

Fee Status

38) Is the applicant exempt from FCC application fees? (Y)Yes No

39) Is the applicant exempt from FCC regulatory fees? (Y)Yes No

Alien Ownership Questions (If any answer is 'Yes', attach exhibit explaining circumstances.)

40) Is the applicant a foreign government or the representative of any foreign government?	(N)Yes No
41) Is the applicant an alien or the representative of an alien?	(N)Yes No
42) Is the applicant a corporation organized under the laws of any foreign government?	(N)Yes No
43) Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	(N)Yes No
44) Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country?	(N)Yes No

Basic Qualification Questions (If any answer is 'Yes', attach exhibit explaining circumstances.)

45) Has the applicant or any party to this application or amendment had any FCC station authorization, license, or construction permit revoked or had any application for an initial, modification or renewal of FCC station authorization, license, construction permit denied by the Commission?	(N)Yes No
46) Has the applicant or any party to this application or amendment, or any party directly or indirectly controlling the applicant, ever been convicted of a felony by any state or federal court?	(N)Yes No
47) Has any court finally adjudged the applicant or any party directly or indirectly controlling the applicant guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement, or any other means or unfair methods of competition?	(N)Yes No
48) Is the applicant or any party directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items?	(N)Yes No

Aeronautical Advisory Station (Unicom) Certification

49) (Y) I certify that the station will be located on property of the airport to be served, and, in cases where the airport does not have a control tower, RCO, or FAA flight service station, that I have notified the owner of the airport and all aviation service organizations located at the airport within ten days prior to application.

50) Race, Ethnicity, and Gender of Applicant/Licensee (Optional):

Race:	American Indian or Alaska Native:	Asian:	Black or African-American:	Native Hawaiian or Other Pacific Islander:	White:
Ethnicity:	Hispanic or Latino:	Not Hispanic or Latino:			
Gender:	Female:	Male:			

General Certification Statements

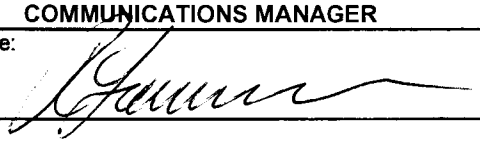
1)	The applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application.
2)	The applicant certifies that grant of this application would not cause the applicant to be in violation of any pertinent cross-ownership, attribution, or spectrum cap rule.* *If the applicant has sought a waiver of any such rule in connection with this application, it may make this certification subject to the outcome of the waiver request.
3)	The applicant certifies that all statements made in this application and in the exhibits, attachments, or documents incorporated by reference are material, are part of this application, and are true, complete, correct, and made in good faith.
4)	The applicant certifies that neither the applicant nor any other party to the application is subject to a denial of Federal benefits pursuant to §5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862, because of a conviction for possession or distribution of a controlled substance. This certification does not apply to applications filed in services exempted under §1.2002(c) of the rules, 47 CFR § 1.2002(c). See §1.2002(b) of the rules, 47 CFR § 1.2002(b), for the definition of "party to the application" as used in this certification.
5)	The applicant certifies that it either (1) has a current Form 602 on file with the Commission, (2) is filing an updated Form 602 simultaneously with this application, or (3) is not required to file Form 602 under the Commission's rules.
6)	The applicant certifies that the facilities, operations, and transmitters for which this authorization is hereby requested are either: (1) categorically excluded from routine environmental evaluation for RF exposure as set forth in 47 C.F.R. 1.1307(b); or, (2) have been found not to cause human exposure to levels of radiofrequency radiation in excess of the limits specified in 47 C.F.R. 1.1310 and 2.1093; or, (3) are the subject of one or more Environmental Assessments filed with the Commission.

Signature

51) Typed or Printed Name of Party Authorized to Sign

First Name:	MI:	Last Name:	Suffix:
ROGER		LAURENCE	MR

52) Title: COMMUNICATIONS MANAGER

Signature:	53) Date:
	3-13-06

FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID.

Upon grant of this license application, the licensee may be subject to certain construction or coverage requirements. Failure to meet the construction or coverage requirements will result in termination of the license. Consult appropriate FCC regulations to determine the construction or coverage requirements that apply to the type of license requested in this application.

WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, §1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, §312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, §503).

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 1	
3) Location Description: FX ,	4) Area of Operation Code:	5) Location Name: GOLDEN VALLEY
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): 1023053		
7) Latitude (DD-MM-SS.S): 44 - 59 - 56.0 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 23 - 53.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description: 9300 NAPER STREET		
10) City: GOLDEN VALLEY	11) State: MN	12) County/Borough/Parish: HENNEPIN
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 286.8	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 122.0	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 128.0
16) Support Structure Type: TOWER		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No
24) Description: (only for Area of Operation Code 'O')
25) Number of Units: ___Hand Held ___Mobile ___Temporary Fixed ___Aircraft ___Itinerant
26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311. (N) Yes No
27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 2	
3) Location Description: FX .	4) Area of Operation Code:	5) Location Name: HCGC
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): 1065149		
7) Latitude (DD-MM-SS.S): 44 - 58 - 33.0 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 16 - 01.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description: 300 SOUTH 6TH STREET		
10) City: MINNEAPOLIS	11) State: MN	12) County/Borough/Parish: HENNEPIN
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 258.0	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 121.0	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 129.0
16) Support Structure Type: B		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ____Hand Held ____Mobile ____Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 3	
3) Location Description: FX .	4) Area of Operation Code:	5) Location Name: MEDINA
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): 1030807		
7) Latitude (DD-MM-SS.S): 45 - 03 - 06.0 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 34 - 14.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description: ARROWHEAD ROAD AND HWY 55		
10) City: MEDINA	11) State: MN	12) County/Borough/Parish: HENNEPIN
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 309.6	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 121.9	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 128.0
16) Support Structure Type: TOWER		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** NAD83 ( ) N or S - -		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** NAD83 ( ) E or W - -	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No
24) Description: (only for Area of Operation Code 'O')
25) Number of Units: ____Hand Held ____Mobile ____Temporary Fixed ___Aircraft ___Itinerant
26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311. (N) Yes No
27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del		2) Location Number: 4
3) Location Description: FX .	4) Area of Operation Code:	5) Location Name: HEALTHPARTNERS
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): N/A		
7) Latitude (DD-MM-SS.S): 44 - 51 - 20.8 NAD83 (N) N or S		8) Longitude (DDD-MM-SS.S): 093 - 13 - 34.7 NAD83 (W) E or W
9) Street Address, Name of Landing Area, or Other Location Description: 3100 34TH AVE SOUTH		
10) City: BLOOMINGTON	11) State: MN	12) County/Borough/Parish: HENNEPIN
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 249.9	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 61.0	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 62.8
16) Support Structure Type: B		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ____Hand Held ____Mobile ____Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 5	
3) Location Description: FX .	4) Area of Operation Code:	5) Location Name: ANOKA CTY GOV CTR
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): N/A		
7) Latitude (DD-MM-SS.S): 45 - 11 - 57.9 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 23 - 12.8 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description: 2100 3RD AVE		
10) City: ANOKA	11) State: MN	12) County/Borough/Parish: ANOKA
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 267.0	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 35.0	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 42.0
16) Support Structure Type: B		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No
24) Description: (only for Area of Operation Code 'O')
25) Number of Units: ____Hand Held ____Mobile ____Temporary Fixed ___Aircraft ___Itinerant
26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311. (N) Yes No
27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 6	
3) Location Description: 6.1 .	4) Area of Operation Code: P	5) Location Name:
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): N/A		
7) Latitude (DD-MM-SS.S): 44 - 58 - 07.0 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 12 - 27.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description:		
10) City:	11) State:	12) County/Borough/Parish:
13) Elevation of Site AMSL (meters) ('a' in antenna structure example):	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example):	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example):
16) Support Structure Type:		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km): 113.0	19) Airport Identifier:	20) Site Status:
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ____Hand Held ____Mobile ____Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del		2) Location Number: 7	
3) Location Description: MO .	4) Area of Operation Code: P	5) Location Name:	
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): N/A			
7) Latitude (DD-MM-SS.S): 44 - 58 - 07.0 NAD83 (N) N or S		8) Longitude (DDD-MM-SS.S): 093 - 12 - 27.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description:			
10) City:	11) State:	12) County/Borough/Parish:	
13) Elevation of Site AMSL (meters) ('a' in antenna structure example):	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example):	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example):	
16) Support Structure Type:			
17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km): 113.0	19) Airport Identifier:	20) Site Status:
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	
23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No			
24) Description: (only for Area of Operation Code 'O')			
25) Number of Units: ___Hand Held 1000 Mobile ___Temporary Fixed ___Aircraft ___Itinerant			
26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311. (N) Yes No			
27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___			

FCC 601
Schedule H

Technical Data Schedule for the Private Land Mobile and Land Mobile Broadcast Auxiliary Radio Services (Parts 90 and 74)

Approved by OMB
3060 - 0798
See 601 Main Form instructions for public burden estimate

Eligibility

1) Rule Section:	2) Describe Activity:
90.523(a)	DATA COMMUNICATIONS FOR POLICE, FIRE, AND LOCAL GOVERNMENT

Frequency Coordinator Information (if not self-coordinated)

3) Frequency Coordination Number	4) Name of Frequency Coordinator	5) Telephone Number	6) Coordination Date
		( ) -	

7) Has this application been successfully coordinated? ( )Yes/No

Extended Implementation (Slow Growth)

8) Are you requesting a new or modified extended implementation plan? (N)Yes/No
If 'Yes', attach an exhibit with a justification and a proposed station construction schedule.

Associated Call Signs (Attach additional sheets if required)

9)				

Broadcast Auxiliary Only

If there is an associated Parent Station, complete Items 10-12.	10) Facility Id of Parent Station:	11) Radio Service of Parent Station:	12) City and State of Parent Station Principal Community:

13) If there is no associated parent station, this applicant is a: ( )
Broadcast Network Entity Television Cable Operator Motion Picture Producer Television Producer

14) State of Primary Operation:

Control Point(s) (Other than at the transmitter) (Attach additional sheets if required)

15) Action A/M/D	16) Control Point Number	17) Location Street Address, City or Town, County/Borough/Parish, State	18) Telephone Number
A	1	9300 NAPER STREET GOLDEN VALLEY MN HENNEPIN	(612) 596-1957

Antenna Information

19) Action ( ) A/M/D	20) Location Number	21) Antenna Number	22) AAT (meters)	23) Antenna Ht. (meters)	24) Azimuth (degrees)	25) Beamwidth (degrees)	26) Polarization	27) Gain (dB)
A	1	1	137.8	128.0			vert	10.0
A	2	1	119.3	129.0			vert	10.0
A	3	1	142.5	128.0			vert	10.0
A	4	1	47.8	62.8			vert	10.0
A	5	1	37.1	42.0			vert	10.0
A	6	1						
A	7	1						

Frequency Information

28) Action ( ) A/M/D	29) Location Number	30) Antenna Number	31) Frequency (MHz) Existing (if mod)	31) Frequency (MHz) New	32) Station Class	33) No. of Units	34) No. of Paging Receivers	35) Output Power (watts)	36) ERP (watts)	37) Emission Designators
A	1	1		769.67500000	FB	1		40.000	41.000	17K7D7W
										43K6D7W
A	1	1		770.17500000	FB	1		40.000	41.000	17K7D7W
										43K6D7W
A	1	1		770.92500000	FB	1		40.000	41.000	17K7D7W
										43K6D7W
A	2	1		768.52500000	FB	1		40.000	69.000	17K7D7W
										43K6D7W
A	2	1		768.57500000	FB	1		40.000	69.000	17K7D7W
										43K6D7W
A	2	1		768.67500000	FB	1		40.000	69.000	17K7D7W
										43K6D7W
A	2	1		768.72500000	FB	1		40.000	69.000	17K7D7W
										43K6D7W
A	2	1		769.97500000	FB	1		40.000	69.000	17K7D7W
										43K6D7W
A	2	1		770.47500000	FB	1		40.000	69.000	17K7D7W
										43K6D7W
A	2	1		770.52500000	FB	1		40.000	69.000	17K7D7W
										43K6D7W
A	3	1		769.17500000	FB	1		40.000	41.000	17K7D7W

Frequency Information

28) Action ( ) A/M/D	29) Location Number	30) Antenna Number	31) Frequency (MHz) Existing (if mod)	31) Frequency (MHz) New	32) Station Class	33) No. of Units	34) No. of Paging Receivers	35) Output Power (watts)	36) ERP (watts)	37) Emission Designators
										43K6D7W
A	3	1		770.27500000	FB	1		40.000	41.000	17K7D7W
										43K6D7W
A	4	1		769.87500000	FB	1		40.000	81.000	17K7D7W
										43K6D7W
A	4	1		771.37500000	FB	1		40.000	81.000	17K7D7W
										43K6D7W
A	5	1		769.57500000	FB	1		40.000	89.000	17K7D7W
										43K6D7W
A	6	1		798.52500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	6	1		798.57500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	6	1		798.67500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	6	1		798.72500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	6	1		799.17500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	6	1		799.57500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W

Frequency Information

28) Action ( ) A/M/D	29) Location Number	30) Antenna Number	31) Frequency (MHz) Existing (if mod)	31) Frequency (MHz) New	32) Station Class	33) No. of Units	34) No. of Paging Receivers	35) Output Power (watts)	36) ERP (watts)	37) Emission Designators
A	6	1		799.67500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	6	1		799.87500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	6	1		799.97500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	6	1		800.17500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	6	1		800.27500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	6	1		800.47500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	6	1		800.52500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	6	1		800.92500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	6	1		801.37500000	FX1	90		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		798.52500000	MO	1000		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		798.57500000	MO	1000		15.000	30.000	17K7D7W

Frequency Information

28) Action ( ) A/M/D	29) Location Number	30) Antenna Number	31) Frequency (MHz) Existing (if mod)	31) Frequency (MHz) New	32) Station Class	33) No. of Units	34) No. of Paging Receivers	35) Output Power (watts)	36) ERP (watts)	37) Emission Designators
										43K6D7W
A	7	1		798.67500000	MO	1000		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		798.72500000	MO	1000		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		799.17500000	MO	1000		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		799.57500000	MO	1000		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		799.67500000	MO	1000		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		799.87500000	MO	1000		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		799.97500000	MO	1000		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		800.17500000	MO	1000		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		800.27500000	MO	1000		15.000	30.000	17K7D7W
										43K6D7W
A	7	1		800.47500000	MO	1000		15.000	30.000	17K7D7W
										43K6D7W

Frequency Information

28) Action ( ) A/M/D	29) Location Number	30) Antenna Number	31) Frequency (MHz)		32) Station Class	33) No. of Units	34) No. of Paging Receivers	35) Output Power (watts)	36) ERP (watts)	37) Emission Designators
			Existing (if mod)	New						
A	7	1		800.52500000	MO	1000		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	7	1	Existing (if mod)	New 800.92500000	MO	1000		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	7	1	Existing (if mod)	New 801.37500000	MO	1000		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						

Washington County

FCC 601
Main Form

FCC Application for Wireless Telecommunications Bureau Radio Service Authorization

Approved by OMB
3060 - 0798
See instructions for public burden estimate

1) Radio Service Code:	1a) Existing Radio Service Code:
SG	

Application Purpose (Select only one) (NE)

2) **NE** - New **RO** - Renewal Only **CO** - Consolidate Call Signs **NT** - Required Notifications
MD - Modification **RM** - Renewal/Modification **WD** - Withdrawal of Application **EX** - Requests for Extension of Time
AM - Amendment **CA** - Cancellation of License **DU** - Duplicate License **AU** - Administrative Update

3a) If this request is for a Developmental License, Demonstration License, or a Special Temporary Authorization (STA), enter the code and attach the required exhibit as described in the instructions. Otherwise enter 'N' (Not Applicable).	(N)D M S N/A
3b) If this request is for Special Temporary Authority due to an emergency situation, enter 'Y'; otherwise enter 'N'. Refer to Rule 1.915 for an explanation of situations considered to be an emergency.	(N)Yes No
4) If this request is for an Amendment or Withdrawal, enter the file number of the pending application currently on file with the FCC.	File Number
5) If this request is for a Modification, Renewal Only, Renewal/Modification, Cancellation of License, Consolidate Call Signs, Duplicate License, or Administrative Update, enter the call sign of the existing FCC license.	Call Sign
6) If this request is for a New, Amendment, Renewal Only, or Renewal/Modification, enter the requested authorization expiration date (this item is optional).	MM DD
7) Is this request "major" as defined in §1.929 of the Commission's rules when read in conjunction with the applicable radio service rules found in Parts 22 and 90 of the Commission's rules? (NOTE: This question only applies to certain site-specific applications. See the instructions for applicability and full text of §1.929).	(Y)Yes No
8a) Does this filing request a Waiver of the Commission's rules? If 'Yes', attach an exhibit providing rule numbers and explaining circumstances.	(Y)Yes No
8b) If attaching a waiver request to this filing, enter the number of rule sections involved.	0
8c) Are the frequencies or parameters requested in this filing covered by grandfathered privileges, previously approved by waiver, or functionally integrated with an existing station?	(N)Yes No
9) **Are attachments being filed with this application?**	(Y)Yes No

Applicant Information

10) FCC Registration Number (FRN): 0004773081

11) Applicant/Licensee is a(n): (G) Individual Unincorporated Association Trust Government Entity Joint Venture
Corporation Limited Liability Corporation Partnership Consortium

12) First Name (if individual):	MI:	Last Name:	Suffix:

13) Entity Name (if other than individual): WASHINGTON, COUNTY OF

14) Name of Real Party in Interest of Applicant (if different from applicant):	15) Taxpayer Identification Number of Real Party in Interest:

Applicant Information (continued)

16) Attention To:		
COMMUNICATIONS SUPERVISOR		
17) P.O. Box: 3801	And /Or	18) Street Address: 15015 62ND ST NORTH
19) City: STILLWATER	20) State: MN	21) Zip: 55082-3801
22) Telephone Number: (651) 439-9381	23) FAX: (651) 430-7603	
24) E-Mail Address: sheriff@co.washington.mn.us		

Contact Information (If different from the applicant)

25) First Name:	MI:	Last Name:	Suffix:
26) Entity Name:			
27) P.O. Box:	And /Or	28) Street Address:	
29) City:	30) State:	31) Zip: -	
32) Telephone Number: ( ) -	33) FAX: ( ) -		
34) E-Mail Address:			

Regulatory Status

35) This filing is for authorization to provide or use the following type(s) of radio service offering (enter all that apply):

( )Common Carrier ( )Non-Common Carrier (P)Private, internal communications ( )Broadcast Services ( )Band Manager

Type of Radio Service

36) This filing is for authorization to provide the following type(s) of radio service (enter all that apply):

(F)Fixed (M)Mobile ( )Radiolocation ( )Satellite (sound) ( )Broadcast Services

37) Interconnected Service? (Y)Yes No

Fee Status

38) Is the applicant exempt from FCC application fees? (Y)Yes No

39) Is the applicant exempt from FCC regulatory fees? (Y)Yes No

Alien Ownership Questions (If any answer is 'Yes', attach exhibit explaining circumstances.)

40) Is the applicant a foreign government or the representative of any foreign government?	(N)Yes No
41) Is the applicant an alien or the representative of an alien?	(N)Yes No
42) Is the applicant a corporation organized under the laws of any foreign government?	(N)Yes No
43) Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	(N)Yes No
44) Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country?	(N)Yes No

Basic Qualification Questions (If any answer is 'Yes', attach exhibit explaining circumstances.)

45) Has the applicant or any party to this application or amendment had any FCC station authorization, license, or construction permit revoked or had any application for an initial, modification or renewal of FCC station authorization, license, construction permit denied by the Commission?	(N)Yes No
46) Has the applicant or any party to this application or amendment, or any party directly or indirectly controlling the applicant, ever been convicted of a felony by any state or federal court?	(N)Yes No
47) Has any court finally adjudged the applicant or any party directly or indirectly controlling the applicant guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement, or any other means or unfair methods of competition?	(N)Yes No
48) Is the applicant or any party directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items?	(N)Yes No

Aeronautical Advisory Station (Unicom) Certification

49) (Y) I certify that the station will be located on property of the airport to be served, and, in cases where the airport does not have a control tower, RCO, or FAA flight service station, that I have notified the owner of the airport and all aviation service organizations located at the airport within ten days prior to application.

50) Race, Ethnicity, and Gender of Applicant/Licensee (Optional):

Race:	American Indian or Alaska Native:	Asian:	Black or African-American:	Native Hawaiian or Other Pacific Islander:	White:
Ethnicity:	Hispanic or Latino:	Not Hispanic or Latino:			
Gender:	Female:	Male:			

General Certification Statements

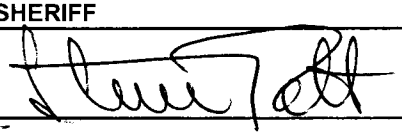
1)	The applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application.
2)	The applicant certifies that grant of this application would not cause the applicant to be in violation of any pertinent cross-ownership, attribution, or spectrum cap rule.* *If the applicant has sought a waiver of any such rule in connection with this application, it may make this certification subject to the outcome of the waiver request.
3)	The applicant certifies that all statements made in this application and in the exhibits, attachments, or documents incorporated by reference are material, are part of this application, and are true, complete, correct, and made in good faith.
4)	The applicant certifies that neither the applicant nor any other party to the application is subject to a denial of Federal benefits pursuant to §5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862, because of a conviction for possession or distribution of a controlled substance. This certification does not apply to applications filed in services exempted under §1.2002(c) of the rules, 47 CFR § 1.2002(c). See §1.2002(b) of the rules, 47 CFR § 1.2002(b), for the definition of "party to the application" as used in this certification.
5)	The applicant certifies that it either (1) has a current Form 602 on file with the Commission, (2) is filing an updated Form 602 simultaneously with this application, or (3) is not required to file Form 602 under the Commission's rules.
6)	The applicant certifies that the facilities, operations, and transmitters for which this authorization is hereby requested are either: (1) categorically excluded from routine environmental evaluation for RF exposure as set forth in 47 C.F.R. 1.1307(b); or, (2) have been found not to cause human exposure to levels of radiofrequency radiation in excess of the limits specified in 47 C.F.R. 1.1310 and 2.1093; or, (3) are the subject of one or more Environmental Assessments filed with the Commission.

Signature

51) Typed or Printed Name of Party Authorized to Sign

First Name:	MI:	Last Name:	Suffix:
STEVE		POTT	MR

52) Title: SHERIFF

Signature: 

53) Date: 3/9/06

FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID.

Upon grant of this license application, the licensee may be subject to certain construction or coverage requirements. Failure to meet the construction or coverage requirements will result in termination of the license. Consult appropriate FCC regulations to determine the construction or coverage requirements that apply to the type of license requested in this application.

WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, §1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, §312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, §503).

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 1	
3) Location Description: FX .	4) Area of Operation Code:	5) Location Name: KING STACK
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): 1024930		
7) Latitude (DD-MM-SS.S): 45 - 01 - 48.0 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 092 - 46 - 44.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description: 1103 KING PLANT ROAD		
10) City: BAYPORT	11) State: MN	12) County/Borough/Parish: WASHINGTON
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 210.6	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 239.2	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 239.2
16) Support Structure Type: STACK		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): Use for rectangle only (Northwest corner) - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): Use for rectangle only (Northwest corner) - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ____Hand Held ____Mobile ____Temporary Fixed ____Aircraft ____Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 2	
3) Location Description: FX .	4) Area of Operation Code:	5) Location Name: WASH GOVT CTR
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): N/A		
7) Latitude (DD-MM-SS.S): 45 - 02 - 15.0 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 092 - 48 - 10.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description: 14900 61ST N		
10) City: STILLWATER	11) State: MN	12) County/Borough/Parish: WASHINGTON
13) Elevation of Site AMSL (meters) ('a' in antenna structure example): 269.0	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example): 26.0	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example): 33.5
16) Support Structure Type: BTWR		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km):	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ____Hand Held ____Mobile ____Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 3	
3) Location Description: 6.1 .	4) Area of Operation Code: P	5) Location Name:
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): N/A		
7) Latitude (DD-MM-SS.S): 44 - 58 - 07.0 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 12 - 27.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description:		
10) City:	11) State:	12) County/Borough/Parish:
13) Elevation of Site AMSL (meters) ('a' in antenna structure example):	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example):	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example):
16) Support Structure Type:		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km): 113.0	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ____Hand Held ____Mobile ____Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule D

Wireless Telecommunications Bureau Schedule for Station Locations and Antenna Structures

Approved by OMB
3060 - 0798
See 601 Main Form Instructions for public burden estimate

1) Action Requested: (A) Add Mod Del	2) Location Number: 4	
3) Location Description: MO .	4) Area of Operation Code: P	5) Location Name:
6) FCC Antenna Structure Registration # or N/A (FAA Notification not Required): N/A		
7) Latitude (DD-MM-SS.S): 44 - 58 - 07.0 NAD83 (N) N or S	8) Longitude (DDD-MM-SS.S): 093 - 12 - 27.0 NAD83 (W) E or W	
9) Street Address, Name of Landing Area, or Other Location Description:		
10) City:	11) State:	12) County/Borough/Parish:
13) Elevation of Site AMSL (meters) ('a' in antenna structure example):	14) Overall Ht AGL Without Appurtenances (meters) ('b' in antenna structure example):	15) Overall Ht AGL With Appurtenances (meters) ('c' in antenna structure example):
16) Support Structure Type:		

17) Location Number: (only for Area of Operation Code 'A')	18) Radius (km): 113.0	19) Airport Identifier:	20) Site Status: P
21) Maximum Latitude (DD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) N or S		22) Maximum Longitude (DDD-MM-SS.S): **Use for rectangle only (Northwest corner)** - - NAD83 ( ) E or W	

23) Do you propose to operate in an area that requires frequency coordination with Canada? (N) Yes No

24) Description: (only for Area of Operation Code 'O')

25) Number of Units: ___Hand Held 1000 Mobile ___Temporary Fixed ___Aircraft ___Itinerant

26) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. (N) Yes No
If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.

27) If the proposed site is located in one of the quiet zones listed in Item 27 of the Instructions, provide the date (mm/dd/yy) the proper authority was notified: ___/___/___

FCC 601
Schedule H

Technical Data Schedule for the Private Land Mobile and Land Mobile Broadcast Auxiliary Radio Services (Parts 90 and 74)

Approved by OMB
3060 - 0798
See 601 Main Form instructions
for public burden estimate

Eligibility

1) Rule Section:	2) Describe Activity:
90.523(a)	DATA COMMUNICATIONS FOR POLICE, FIRE AND LOCAL GOVERNMENT

Frequency Coordinator Information (if not self-coordinated)

3) Frequency Coordination Number	4) Name of Frequency Coordinator	5) Telephone Number	6) Coordination Date
		( ) -	

7) Has this application been successfully coordinated? ( )Yes/No

Extended Implementation (Slow Growth)

8) Are you requesting a new or modified extended implementation plan? (N)Yes/No
If 'Yes', attach an exhibit with a justification and a proposed station construction schedule.

Associated Call Signs (Attach additional sheets if required)

9)				

Broadcast Auxiliary Only

If there is an associated Parent Station, complete Items 10-12.	10) Facility Id of Parent Station:	11) Radio Service of Parent Station:	12) City and State of Parent Station Principal Community:

13) If there is no associated parent station, this applicant is a: ( )
Broadcast Network Entity Television Cable Operator Motion Picture Producer Television Producer

14) State of Primary Operation:

Control Point(s) (Other than at the transmitter) (Attach additional sheets if required)

15) Action A/M/D	16) Control Point Number	17) Location Street Address, City or Town, County/Borough/Parish, State		18) Telephone Number
A	1	15015 62ND ST N STILLWATER WASHINGTON	MN	(612) 439-9381

Antenna Information

19) Action ( ) A/M/D	20) Location Number	21) Antenna Number	22) AAT (meters)	23) Antenna Ht. (meters)	24) Azimuth (degrees)	25) Beamwidth (degrees)	26) Polarization	27) Gain (dB)
A	1	1	133.8	199.0			VERT	10.0
A	2	1	23.3	33.5			VERT	10.0
A	3	1						
A	4	1						

Frequency Information

28) Action ( ) A/M/D	29) Location Number	30) Antenna Number	31) Frequency (MHz)		32) Station Class	33) No. of Units	34) No. of Paging Receivers	35) Output Power (watts)	36) ERP (watts)	37) Emission Designators
			Existing (if mod)	New						
A	1	1		769.47500000	FB	1		40.000	27.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	2	1	Existing (if mod)	New 769.47500000	FB	1		40.000	40.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	3	1	Existing (if mod)	New 799.47500000	FX1	90		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
A	4	1	Existing (if mod)	New 799.47500000	MO	1000		15.000	30.000	17K7D7W
			Existing (if mod)	New						43K6D7W
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						
			Existing (if mod)	New						